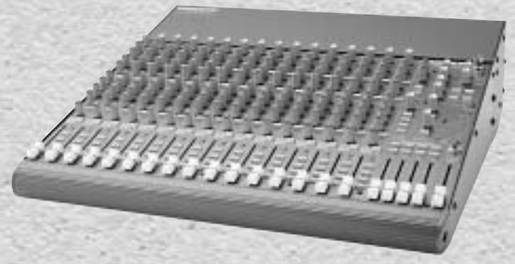

B&H PHOTO - VIDEO - PRO AUDIO

The Professional SourceBook

Section12

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SM-58

Uni-directional Dynamic Microphone

Consistently the choice of professional performers around the world, the SM58 is a rugged uni-directional dynamic mic with a highly effective built-in wind and pop filter. It's performance characteristics and compact size make it especially well-suited for music and speech applications. A genuine world standard and audio legend, the SM58 makes all vocalists sound their best.

- Unusually effective cardioid pickup pattern to minimize background noise and undesirable effects of studio and location acoustics. Rear and side rejection uniform to very low frequencies and completely symmetrical about microphone axis.
- Shock-mounted cartridge reduces mic handling noise and mic stand rumble.
- Self-contained spherical filter to control explosive breath sounds ("pop") and wind noise in outdoor locations. Easily removable for cleaning or replacement.
- Designed for both field and studio use —hand-held or on a stand. Includes slip-in swivel adapter.

SM58LC (less cable) **99.95**
SM58CN w/ 25' XLR cable **109.95**
SM58S w/ on-off switch (no cable) .. **99.95**

SM-57 *Uni-directional Dynamic Microphone*

A true classic, the SM-57 is the "workhorse" microphone of stages and studios worldwide. It's carefully contoured frequency response means clean, well-defined instrument reproduction and rich, warm vocal pickup on lecterns or stages. The SM-57 is the standard for drum, percussion and instrument amplifier miking.

- Unusually effective cardioid pattern minimizes reflections caused by poor studio or location acoustics and background noise.
- Ideal for narration/dialogue, vocal music and rhythm pickups.
- Shock-mounted cartridge reduces mic handling noise and mic stand rumble.
- Designed for both field and studio use —hand-held or on a stand. Includes slip-in swivel adapter.
- Rear and side rejection uniform to very low frequencies and completely symmetrical about microphone axis.

SM57LC (less cable) **79.95**

SM-87A *Super-cardioid Condenser Microphone*

The choice of the world's top entertainers, the SM87A features a smooth frequency response that is tailored for warm, rich vocal reproduction. Super-cardioid polar pattern permits high gain without feedback and rejects unwanted sounds. A three-stage wind/pop filter minimizes breath noise and an excellent internal shock mount minimizes mic stand rumble and handling noise.

- Flat frequency response for greater gain before feedback.
- Wide-range phantom powering operates from 11 to 52v DC.
- Low-frequency roll-off reduces low-frequency rumble and handling noise and compensates for proximity effect.
- Very low RF and magnetic hum susceptibility
- Low distortion output and wide dynamic range characteristics for a variety of load impedances.

SM87A 196.50

When you buy a Shure microphone you are buying uncompromised precision, performance, ruggedness and reliability in "real world" usage. To back it up, Shure has the most stringent quality assurance testing program in the business. Before it can bear the Shure name, a mic must be able to withstand extended exposure to extremes in temperature (-20° to 165°F) and humidity (100% at room temperature), ultraviolet rays, salt spray, alcohol, sand and water. Also, violent vibrations, "drop tests" (repeated drops from six feet onto hardwood floors) and ten days of repeated cycling between simulated arctic and tropical environments. If the mic doesn't work after all this, it's not a Shure. This dedication has made Shure "The Sound of the Professionals Worldwide" for decades. And that's why you'll find Shure microphones virtually everywhere—on stages, lecterns, remote broadcast locations and production sets all over the world.

BETA 57A/BETA 58A

Super-cardioid Dynamic Microphones

The BETA 57A and 58A offer premium performance to their counterparts, the SM57 and SM58. The BETA 58A is unequivocally the best dynamic mic for demanding live vocal applications while the BETA 57A excels in instrument miking applications. They both employ a super-efficient magnetic circuit design that provides maximum output voltage for improved S/N ratio.

- Super-cardioid pattern remains uniform and symmetrical throughout their frequency range. This reduces off-axis coloration and feedback. Wide and smooth frequency response adds extra clarity
- Advanced electro-pneumatic shock mount design effectively minimizes transmission of handling or stand noise.
- Plug element pins are gold plated for durable and low-noise transfer.
- Humbucking coil permits use in strong hum fields produced by lighting

BETA 57A .....CALL
BETA 58A .....CALL

Shure's BETA series includes the microphones that have proven legendary performance. The BETA series' outstanding responsiveness to vocals and instruments, specifically their maximum isolation from other sound sources and minimum off-axis coloration, have made them the most respected and widely used microphones in the world. They also offer Shure reliability for years of trouble-free performance.

BETA 87A *Super-cardioid Condenser Microphone*

A premium quality super-cardioid condenser microphone, the BETA 87 features exceptionally smooth frequency response, high SPL capability and a 3-stage pop filter to minimize breath noise. Ideal for live sound and music production, it also features improved shock mounting and a premium hardened, dent-resistant grille.

- Super-cardioid polar pattern remains uniform throughout the frequency range allowing higher gain before feedback and reduced background noise pickup.
- Wide dynamic range (113dB) and low distortion characteristics.
- Phantom powered, accepts voltages from 11 to 52 volts.
- Smooth frequency response 50 to 18 kHz with a gradual presence rise and minimal off-axis coloration.
- Low susceptibility to RFI, electrostatic and electro-magnetic hum.
- Advanced cartridge shock mount system reduces handling noise.
- Includes the A25D break-resistant swivel adapter.

BETA 87A .....CALL

SM-7A *Cardioid Dynamic "Voice-Over" Microphone*

A dynamic microphone with a very smooth, flat, wide-range frequency response, the SM-7A is meticulously designed for the most exacting music and speech requirements. One of the most popular mics for narration, TV and radio production as well as vocal and instrument recording. Improved shielding against electromagnetic hum generated by computer monitors, neon lights, and other electrical devices has made the SM-7A a classic voice-over microphone.

- Dynamic mic with a cardioid polar pattern offering minimum off axis coloration
- Flat and wide 50 to 20 kHz frequency response for exceptionally clean and natural reproduction of music and speech
- Bass roll-off and mid-range emphasis (presence boost) controls
- Optimized shielding against interference emitted by computer monitors or electromagnetic hum
- Internal "air suspension" shock isolation eliminates mechanical noise transmission
- Pop filter eliminates 'plosives' (pops) even for close-up vocals and narration
- Swivelling yoke mount with rotating stand nut provides precise control as wells as easy mounting and dismounting of microphone
- Rugged construction and superior cartridge protection for outstanding reliability.

SM-7A.....319.95

MICROFLEX SERIES CONDENSER MICROPHONES

The entire Microflex family of miniature condenser microphones have been designed with performance, consistency and ease of installation in mind. Their cardioid, super-cardioid and omni-directional condenser cartridges are completely interchangeable and fit every Microflex Gooseneck, Overhead, Boundary, and Lavalier model for the ultimate in convenience and uniform sound. Plus, each Microflex model includes all the basic accessories needed for complete installation.

MX-391/392/393

Surface-Mount Microphones

The low-profile Microflex Series boundary microphones are designed to be unobtrusively placed flat on a stage, table top or wall while offering high quality audio for sound reinforcement, boardrooms, broadcast or recording. Available with interchangeable cardioid, super-cardioid and omni-directional polar patterns in battery power, phantom power or pigtail versions, giving you the flexibility for any application.

- 50Hz to 17kHz frequency response
- Easy to use paint mask for your custom-color installations
- Programmable silent membrane switches with LED indicator can be set for Push to Talk, Push to Mute or Push On/Push Off modes (MX392 and MX393 only)

Surface-Mount Microphone Models Include:

- **MX391/C** (cardioid) includes attached 12' cable and separate in-line preamp, phantom power only **149.95**
- **MX391/S** (super-cardioid version of above).....**154.95**
- **MX391/O** (omni-directional version of above).....**137.95**
- **MX391W/C, S or O** White versions of above available for the same price
- **MX391BP/C** (cardioid) Battery/phantom power of above includes MX1BP battery/phantom power module **159.95**
- **MX391BP/S** (super-cardioid version of above).....**166.95**
- **MX391BP/O** (omni-directional version of above).....**149.50**
- **MX391LP/C** (cardioid) without preamplifier for wireless systems, uses Tini Q-G connector **99.95**
- **MX391LP/S** (super-cardioid version of above).....**101.95**
- **MX391LP/O** (omni-directional version of above).....**87.50**
- **MX391WLP/C, S or O** White versions of above available for the same price
- **MX392/C** (cardioid) includes programmable membrane switch with LED indicator, Built-in preamplifier, logic input/ output control capability, unterminated, phantom power only **184.95**
- **MX392/S** (super-cardioid version of above).....**189.95**
- **MX392/O** (omni-directional version of above).....**178.50**
- **MX393/C** (cardioid) includes programmable membrane switch with LED indicator, Built-in preamplifier, detachable cable terminates to a male XLR connector, phantom power only **184.95**
- **MX393/S** (super-cardioid version of above).....**189.95**
- **MX393/O** (omni-directional version of above).....**178.50**

MX-183/184/185 *Lavalier Microphones*

Three wired lavalier microphones from the Shure Microflex series no larger than a paper clip. Optional interchangeable mic cartridges allows you to tailor the microphones to any audio environment. The mics attach to the supplied power supply with the Shure Tini Q-G connector. When the power supply is removed, the microphones can be used with any Shure wireless transmitters.Well suited for all levels of location video work, recording and live applications.

- Condenser lavalier microphones
- Interchangeable cartridges for omni-directional, cardioid and super-cardioid polar patterns
- Frequency Response 60 - 20 kHz
- Includes pivoting, single-microphone tie clip and dual microphone tie clip
- Black, Snap-fit Foam Windscreen
- Compatible with all Shure wireless transmitters
- Available with belt-clip phantom power only preamp and MX1BP battery/phantom power preamp
- Attached 4-foot cable with Tini Q-G connector

Lavalier Microphone Models Include

- **MX183** Omni-directional condenser lavalier, belt-clip preamp, rotatable tie clip, dual tie clip, snap-fit windscreen **149.50**
- **MX184** Super-cardioid version of above **166.95**
- **MX185** Cardioid version of above **159.95**
- **MX183BP** Omni-directional condenser lavalier microphone with 4-ft attached cable, MX1BP preamplifier **159.95**
- **MX184BP** Super-cardioid version of above **178.50**
- **MX184BP** Cardioid version of above **172.50**

Gooseneck Microphones

Designed with premium audio quality and ease of installation in mind, these miniature condenser gooseneck microphones feature swappable cardioid, super-cardioid and omni-directional cartridge capability and come complete with all the necessary accessories. A variety of mounting options make these mics suitable for any installation. All models run on phantom power and have a frequency response of 50Hz to 17kHz.

Swappable Microflex Series Cartridges

- **R183B** Omni-directional **36.50**
- **R184B** Super-cardioid **54.95**
- **R185B** Cardioid **49.50**

Gooseneck Microphone Models Include:

- **MX412/C** (cardioid) 12″ gooseneck, terminates to XLR connector.....**166.95**
- **MX412/S** (super-cardioid version of above).....**172.50**
- **MX412/O** (omni-directional version of above).....**154.95**
- **MX418/C** (cardioid) 18″ version of above.....**166.95**
- **MX418/S** (super-cardioid version of above) .**172.50**
- **MX418/O** (omni-directional version of above).....**154.95**
- **MX412D/C** (cardioid) 12″ gooseneck with desktop base, with programmable switch, logic input and output terminals and attached 10' XLR cable.....**215.95**
- **MX412D/S** (super-cardioid version of above) .**219.95**
- **MX412D/O** (omni-directional version of above).....**204.95**
- **MX418D/C** (cardioid) 18″ version of above.....**215.95**
- **MX418D/S** (super-cardioid version of above).....**219.95**
- **MX412S/S** (super-cardioid version of above).....**184.95**
- **MX412S/O** (omni-directional version of above).....**172.50**
- **MX418S/C** (cardioid) 18″ version of above.....**183.95**
- **MX418S/S** (super-cardioid version of above).....**184.95**
- **MX418S/O** (omni-directional version of above).....**172.50**
- **MX412SE/C** (cardioid) 12″ gooseneck with attached 10' XLR cable and inline preamplifier, threaded flange mount and shock mount adapter.....**178.50**
- **MX412SE/S** (super-cardioid version of above).....**183.95**
- **MX412SE/O** (omni-directional version of above).....**166.95**
- **MX418SE/C** (cardioid) 18″ version of above.....**178.50**
- **MX418SE/S** (super-cardioid version of above).....**183.95**
- **MX418SE/O** (omni-directional version of above).....**166.95**
- **MX418D/O** (omni-directional version of above) **204.95**
- **MX412S/C** (cardioid) 12″ gooseneck with push-button mute switch and LED status indicator, terminates to male XLR connector **183.95**

MX-202 *Hanging Microphones*

These phantom power only miniature hanging condenser mics feature the same interchangeable capsule design as the rest of the Microflex series. Available with either plate-mount or stand adapters ideal for use as overheads for live theatrical and musical productions. The flexible 4″ gooseneck allows you to unobtrusively aim the mics exactly the way you want them.

Hanging Microphone Models Include:

- **MX202B/**C (cardioid) 4″ gooseneck with in-line preamplifier and stand adapter, black finish.....**149.50**
- **MX202B/S** (super-cardioid version of above).....**154.95**
- **MX202B/O** (omni-directional version of above).....**137.95**
- **MX202W/C, S or O**
  White versions of above available for same price
- **MX202BP/**C (cardioid) 4″ gooseneck with plate-mount preamplifier and 30' cable, black finish.....**149.50**
- **MX202BP/**(super-cardioid version of above) **154.95**
- **MX202BP/O** (omni-directional version of above) **137.95**
- **MX202WP/C, S or O**
  White versions of above available for same price

SM63
Omni-Directional Dynamic ENG Microphone

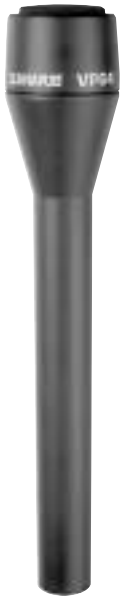
An elegant yet rugged microphone that's compact and light weight, the SM63's omni-directional polar pattern, wide 40 to 20,000 Hz frequency response and patented mechanical isolation system for low handling and stand noise makes it the ideal choice for ENG work. It also offers an effective wind and pop filter, and a durable VERAFLEX grille that won't rust or dent. When extra reach is needed, the SM63L and SM63LB offer an extra-long streamlined handle.

SM63 .....**111.95**

SM63L Extended handle, champagne finish **..127.50**

SM63LB Extended handle, black finish **.....127.50**

VP64A
Omni-Directional Dynamic ENG Microphone



A sleek, ergonomic design and a high energy neodymium magnet make the VP-64A ideal for "on-camera" video production and broadcast use. The upper-midrange presence rise adds clarity, while the low-end roll-off minimizes boominess and background noise. Delivers consistent audio quality on or off axis, high output and low noise. It also offers effective shock isolation and extremely rugged construction. Frequency response is 50 to 12,000 Hz

VP64A (7-7/8 in. handle) **73.95**

VP64AL (9-5/8 in. handle).....**86.50**

VP88
Single-Point Stereo Condenser Microphone

A rugged, single-point stereo microphone, the VP-88 is ideal for studio or field use. Employing a M-S (Mid-Side) recording configuration it captures superb three dimensional realism that is completely mono compatible. M-S combines a cardioid polar pattern mic element (Mid) and a figure 8 polar pattern mic element (Side) and a stereo width adjustment that controls the stereo spread

- Frequency response is 40 to 20,000 Hz
- Adjustable stereo spread for direct control of the amount of stereo effect
- Mono compatibility for broadcast applications
- Switch-selectable phantom or 6V internal battery power, and low-frequency roll-off

VP88 M-S Stereo Microphone (includes windscreen, swivel adapter, battery and Y-cable .**649.95**

SM89
Hyper-Cardioid Shotgun Condenser Microphone

A highly directional shotgun condenser microphone, the SM89 is specifically designed for location film and TV production, theatre and sound reinforcement, and spot news coverage. The SM89 reduces the problem of off-axis coloration, thanks to its exclusive Accu-Port interference tube system and its smooth, extended frequency response. Aircraft quality aluminum housing makes the SM89 up to 40% lighter than other models and easy to handle.

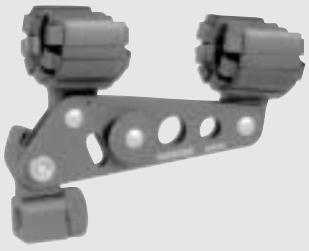
- Switchable low-cut filter @ 160Hz
- 127dB maximum SPL @ 1kHz
- Uses readily available 11 - 52v phantom power
- Frequency response is 60 to 20,000 Hz

SM89 Shotgun Microphone (includes carrying case and RK257WS windscreen **609.95**

Optional VP88 and SM89 Shock Mounts

A89SM Shock Mount Holder for the SM89: Utilizes dual shock isolators and a cable locking design to eliminate noise associated with stands, booms, fishpoles, and cable movement. Mounting options include 5/8″, 3/8″ and 5/16″ thread adapters for stands and booms.....**86.95**

A88SM Microphone Isolation Mount for the VP88:
Same as the A89SM plus it adds locking "foot" and 1/4″-20 screw-type adapter for cameras and a pistol grip adapter plate.....**144.95**



PROBLEM SOLVERS

A96F *Low- to Medium- Impedance Matching Transformer*

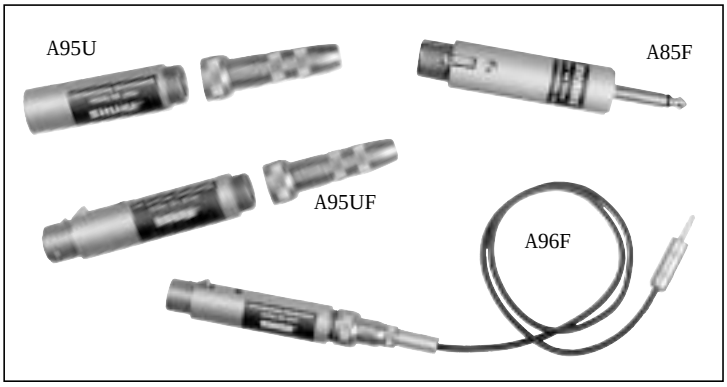
Low impedance, female XLR to medium impedance 3.5mm mini-plug output connector with 18″ cable. Adapts a balanced, low-impedance microphone to camcorder/ recorder input. Also has a DC Bias Filter **36.50**

A95UF/A95U

Low- to High-Impedance Microphone Transformer

The A95UF and A95U provide 24 dB of voltage gain and may be used in reverse (high- to low- impedance). The A95UF comes with a balanced low impedance 3-pin XLR female input and the A95U comes with a balanced 3-pin XLR male low-impedance connector. An Amphenol MC1M-type output connector with mating 1/4″ male phone plug and female phone jack adapt to a variety of high-impedance signals.

A95UF/A95U 34.95/32.50



A85F

Economy Low- to High-Impedance Mic Matching Transformer

Provides 24 dB of voltage gain and may be used in reverse. Balanced 3-pin XLR female input and 1/4″ male output **17.50**

Problem Solvers

No matter how well you plan ahead, sooner or later you will probably run into an audio-related problem. For example, dealing with incompatible signals of a low impedance microphone and a high impedance mic input of a camcorder or eliminating the low end rumble picked up by a sensitive mic due to handling noise or even automobile traffic. Shure has developed a number of problem solving solutions to help you out in these types of situations and many others.

A15AS

Switchable Microphone Attenuator

Prevents preamplifier overload when strong signals are applied.

- Provides 15, 20, or 25 dB of microphone attenuation
- Requires use of balanced signals; XLR female in and XLR male out
- Passes phantom power **38.50**

A15HP

High-Pass Filter

Reduces unwanted low end rumble in microphone signals.

- Provides low-end roll-off of 12 dB per octave below 100 Hz
- Slender, in-line XLR (F) to XLR (M) configuration
- Requires use of balanced signals **38.50**

A120S

Accessory In-Line Switch

Provides on/off, push-to-talk, cough button, and transmitter relay keying functions for wired microphones.

- Convenient handheld size with belt clip
- For hardwired, in-line use with various cable diameters **23.95**

A15PRS

Switchable Phase Reverser

Provides instant switch selection of normal or reversed phase of a balanced line without modification of equipment.

- Reverses polarity of pins 2 and 3 of a balanced line
- Slender, in-line XLR (F) to XLR (M) configuration; may be used in reverse
- Requires use of balanced signals **38.50**

A15LA

Line Adapter

Provides 50 dB attenuation, allowing a balanced line-level source to be connected to a balanced microphone input.

- Slender, in-line XLR (F) to XLR (M) configuration
- Requires use of balanced signals **34.95**

A15BT

Bridging Transformer

Matches balanced or unbalanced devices of different impedances.

- 33 kOhm primary: 600 or 7500 ohm secondary; may be used in reverse
- Slender in-line XLR (F) to XLR (M) configuration **39.95**

RE-20

Variable-D Dynamic Cardioid Studio Microphone

The RE20 has a sound that has made it one of the most popular broadcast announce and voice-over microphones in the world. The RE20 has a smooth, extended, clean response with a Variable-D design that virtually eliminates "bass boosting" (proximity effect) when working close to the microphone. A heavy-duty, internal P-pop/blast filter allows you to be right up to the microphone with no worry about pops or hissing sounds. Features include a bass roll-off switch and an internal microphone element shock mount that reduces vibration-induced noise. Frequency response is 45 Hz to 18 kHz.

RE-27ND

Variable-D Dynamic Cardioid Studio Microphone

The RE27N/D uses the proven Variable-D concept pioneered by the legendary RE20, but incorporates N/DYM technology to create a dynamic microphone that exhibits higher output and even wider frequency response than the industry-standard RE20. Variable-D reduces bass-boosting "proximity effect" to maintain a uniform low-frequency response, up close or at a distance. In addition, it features three switchable filters – one high frequency and two low frequency. An internal blast/wind filter covers the microphone head/vents along the mic body, preventing P-pops, breath sounds, or excessive sibilance.

RE-20 Dynamic Cardioid Studio Microphone **429.95**

RE-27ND Dynamic Cardioid Studio Microphone **459.95**

Microphones Built to Last

A mainstay in the broadcast/production industry for nearly 50 years, high reliability is designed and built into every EV mic. While performing their audio job, EV mics have met every physical challenge in the studio or in the field. And EV's warranty reflects this experience and their confidence. All mics are unconditionally guaranteed against malfunction for two years, including accidental damage during use. In addition, the acoustic system is guaranteed against defects in materials or workmanship for the life of the product—there is nothing else like it.

ENG-618

Integrated Boom Pole/Shotgun Microphone

Integrating a shotgun microphone and a boom pole with built-in headphone amplifier, the ENG-618 is ideal for ENG work. It features a perfectly balanced, ergonomically designed graphite fiber K-Tek boom pole that provides great strength with minimum weight and a permanently attached back electret shotgun microphone with superior selective pickup performance. The six foot boom pole and microphone collapses to a mere 18 inches for easy transport.

- Hypercardioid-line (shotgun), back-electret condenser microphone
- 200 Hz roll-off circuit located in the electronics housing at the back end of the boom-pole, lets you precisely tailor the sound quality.
- Low-battery LED indicator
- Standard 3-pin balanced XLR- connector
- 50 Hz to 20 kHz on-axis frequency response
- Finely crafted, high-density K-Tek graphite fiber boom-pole with a burnished finish that reduces handling noise.
- Supplied with windscreen and storage pouch
- Powered by external 12- to 52-volt phantom power supply or by the 9v internal battery that is used to power the headphone amplifier.

ENG-618 ..... **799.95**

We Exhibit At NAB, Infocomm, and Siggraph

635A/AB/ND•B

Dynamic Omni-Directional ENG/EFP Microphones

The 635A is the most popular and well-known ENG/EFP microphone in the world. It has survived being dropped, run over, thrown and even being shot while on location for film, television and radio remotes. The 635A's tailored frequency response delivers clean audio under adverse field conditions. The amazing, unsurpassed durability of the 635A has earned it a nickname: "The Hammer". Its moderately high output level (-55dB) is appropriate for a broad range of studio and field applications. Its response has been specially shaped for up-close vocals. The 635 AB is the same but it comes in a camera-black finish. The 635ND•B also comes in black but it is a neodymium mic. Frequency response: 20-20KHz ±3 dB.

635A .....**89.95** **635AB**.....**89.95** **635ND•B** **109.95**

RE-50B/RE-50ND•B
Dynamic Omni-Directional ENG/EFP Mics

The RE50B is designed specifically as an ENG/EFP interview microphone. Every day, for local, national and international news reports, the RE50B gathers the audio for news interviews. The RE50B's custom "mic-within-a-mic" shock mount provides extremely low handling noise for superior sound. A large, built-in Acoustifoam filter keeps wind and P-pop noise to an absolute minimum, indoors or out. Frequency response is 20Hz -20kHz ±3 dB.

RE-50B.....**139.95** **RE-50ND•B**.....**149.95**

What is Neodymium, N/DYM, or N/D?

Neodymium, also known as N/DYM or N/D, is a rare-earth element which, when magnetized, is four times more powerful than a normal magnet. Electro-Voice, the developers of N/DYM technology, found that N/D dynamic microphones give equivalent condenser performance without the condenser microphone drawbacks of dead batteries, failing phantom power, or problem operation in high humidity.

RE-45 N/D *Cardiline Dynamic Shotgun Mic*

A unique handheld and camera-mountable "short shotgun" microphone utilizing N/DYM technology. N/DYM design gives you the high output level of a condenser microphone with added benefits. First, the RE45N/D is a dynamic design, so it requires no batteries. It can take high humidity levels that would otherwise knock out a condenser shotgun. Rugged reliability and plug-in-and-go design make the RE45N/D the ENG/EFP shotgun microphone of choice. Approximate working range 6-8 feet. Cardiline, is a combination of a cardioid directional pattern with an ultra-directional, slotted tube line design (cardioid + line = Cardiline). Cardiline microphones give greater "reach", typically two to four times over conventional cardioid microphones. Frequency response is 20-20KHz ±3 dB. RE-45ND 369.95

RE-16
Dynamic Super-Cardioid, Slotted Handle ENG/EFP Microphones

For professionals who need an exceptional super-cardioid mic for ENG interviews, voice-overs and music production recording. It has an excellent, built-in heavy duty pop/blast filter, switchable bass roll-off, hum-bucking coil and a Memraflex grille screen that retains its shape if dropped. Frequency response is 80Hz -15 kHz

RE-16 .....**199.95**

EV Microphone Accessories

309A	Suspension shock mount for RE-20, RE-27N/D	**109.95**
311	Stand clamp for 635A, RE-16	**19.95**
313	Shock mount for stand clamp for 635A, RE-16	**39.95**
314E	Windscreen for 635A	**19.95**
320	Stand clamp for RE-20, RE-27N/D	**34.95**
379	Windscreen pop filter for RE-16, RE-50	**19.95**
422A	Desk stand with rubber shock mount that accepts microphone stand clamps, black	**29.95**
423B	Desk stand, 5 1⁄8″ diameter base and 5″ post with 5⁄8″-27 thread, black	**29.95**

AT803b

Miniature Omni-directional Condenser Lavalier Mic

The AT803b is a lavalier microphone with excellent yet unobtrusive sound pickup. The wide-range capability of the AT803b ensures clean, accurate reproduction with high intelligibility for lecturers, singers, stage and TV performers. A clothing clip is provided, as well as an accessory windscreen and carrying case. The AT803b can be powered from an external 9v to 52v DC phantom supply or will run for approximately 1000 hours on a standard AA battery (supplied). The microphone element is enclosed in a rugged housing with a low-reflectance finish. Internal construction is designed to minimize handling and clothing noise. A 6-foot cable is provided between the microphone and power module. A built-in 3-position switch on the power module allows selection of battery off, battery on/flat response, or battery on/low-roll-off. When powered by phantom power, the battery is bypassed, while response selection of flat and roll-off is still available via the switch **147.95**

AT831b

Miniature Cardioid Condenser Lavalier Mic

The AT831b is a lavalier mic designed for use by professional musicians, especially for pickup of acoustic guitar, and for hands-free applications in sound reinforcement systems. The AT831b provides improved gain (before feedback) that is difficult to obtain with omni-directional microphones. Voice and instrument pickup is crisp, clean, and full sounding.....**139.95**

- Can be powered from an external 9v to 52v DC phantom supply or will run for approximately 1000 hours on a standard AA battery (supplied).
- Mic element is enclosed in a rugged housing with low-reflectance finish.
- 3-position switch on the power module allows selection of battery off/on/flat response, or battery on/low-roll-off.
- Internal construction is designed to minimize handling and clothing noise.
- A 6-foot cable is provided between the microphone and power module.
- Includes a clothing clip, instrument adapter, windscreen and carrying case.

AT813a *Cardioid Condenser Mic*

The AT813 is a wide-range condenser mic with a cardioid (uni-directional) polar pattern designed for professional recording and sound reinforcement applications. Utilizing the latest low-mass technology, frequency and transient response is improved, while distortion is reduced. Its uni-directional pattern controls feedback and minimizes pickup of unwanted sounds, such as audience or machine noise. It also allows greater mic-to-performer distance when compared to omni-directional mics. The AT813 is enclosed in a rugged housing with a low-reflectance matte finish. The internal shock-mounting is designed to minimize handling and cable noise.....**149.95**

AT804

Omni-Directional Dynamic Microphone

The AT804 is a moving coil dynamic mic with an omni-directional pickup pattern. Designed for professional recording and broadcast studios, it is particularly suited to applications requiring utmost dependability with uniform high quality. Its hardened-steel grille and diecast case make the AT804 ideal for field applications where rugged construction is essential. Output is via a three-pin balanced XLR connector. A snap-in microphone stand adapter and a protective soft vinyl microphone pouch are included.....**89.95**

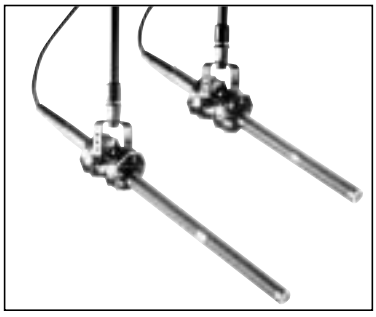
AT822/AT825

Onepoint X/Y Stereo DAT Microphones

They are X/Y stereo condenser microphones with full mono compatibility, designed for DAT recording. They are equally suited for television, FM, and field applications—handheld or camera-mounted— where they provide full, natural stereo ambience in a compact, lightweight design. The AT825 adds balanced output as well as external phantom power capability.

- They readily respond to the typical configurations of high quality stereo audio recording. This includes true stereo ambience (crowd noise, music, etc.) mixed with narrative talent on a center mono channel. In single-take situations, technicians will also appreciate their excellent channel separation.
- Switchable low-frequency roll-off
- Distortion-free signal even in sound fields as high as 125 dB SPL.
- Excellent channel separation
- The AT822 runs on a single AA, the AT825 can run on phantom power or a AA battery.
- Closely-matched elements provide the spatial impact and realism of a live sound field.
- AT822 includes a 1.7' cable (XLR-female to stereo 3.5 mm mini-plug); and a 10´ cable (XLR-female- to two mono 3.5 mm mini-plugs); gun-grip/stand clamp; camera shoe-mount adapter; windscreen; battery; case
- AT825 includes a 16.5´ cable (5-pin XLR to two standard 3-pin XLR connectors), stand clamp; windscreen; battery; case.

AT822 .....**249.95** **AT825** **339.95**



AT815b/AT835b

Condenser Line and Gradient Microphones

The 18-inch AT815b is a wide-range condenser microphone with a uni-directional polar pattern for long distance sound pickup. Although designed for professional recording, broadcasting and film/video sound it is equally suited for serious amateur recording and sound reinforcement. The slightly shorter (14-inch) AT835b has a wider acceptance angle.

- They feature a XLR balanced low-impedance output. They can be powered from an external 9v to 52v DC phantom supply or run for approximately 3000 hours on a single AA battery.
- Enclosed in a rugged housing with a low-reflectance matte satin nickel finish.
- Selectable flat frequency response for full range sound pickup or roll-off frequencies below 100 Hz for reduction of low-end rumble or handling noise.
- Frequency response of the AT815B is 30 Hz to 20 kHz and 40 Hz to 20 kHz on the AT835b.
- Supplied with a snap-in microphone stand adapter, a foam windscreen for outdoor or boom use and a vinyl carrying case.

AT815b .....**279.95** **AT835b** **239.95**

AT4071a/AT4073a *Condenser Line and Gradient Microphones*

The AT4071a and AT4073a exhibit exceptional directivity from their line and gradient design that offers linear on-axis response and maximum rejection of sounds from the sides and rear of the microphones. The unique positioning of the capsules within the tube of the microphones greatly reduces the mics' sensitivity to wind noise and all but eliminates coloration due to proximity effect when the mics are used at varying distances.

- Designed for critical long-distance pickup in broadcasting, film/TV production, and theater sound reinforcement applications.
- AT4071a has an ultra narrow acceptance angle for difficult long reach situations.
- AT4073a has a wider acceptance angle yet is still quite directional.
- Exclusive acoustic design provides same directivity as mics up to 50% longer.
- Frequency Response 30 - 20,000 Hz
- Require 11v - 52v phantom power
- Direct-coupled, XLR balanced output ensures a clean signal even in high-output conditions
- Rugged housing made of lightweight structural-grade aluminum alloy
- 112 dB dynamic range
- Switchable low frequency roll-off 150 Hz, 12 dB per octave
- Include AT8405 stand clamp; foam windscreen; protective case

AT4071a .....**599.95 ..** **AT4073a** **529.95**

ECM-44/55/66/77

Lavalier Microphones

Sony's lavalier microphones are manufactured to meet the most demanding professional broadcast and recording requirements. They are designed to deliver the highest level of performance and reliability. There are four primary lavalier mics in the series, offering different sizes and applications. Additionally, they offer three big advantages over other systems.

High Performance

Sony's lavalier microphones are distinguished by their superior performance, as represented by the wide (40Hz~20kHz) frequency response of the top-of-the-line ECM-77B. They will more than measure up to your expectations.

Wide Selection

The Sony lavalier series is comprised of four models, each finished in black plating. Designed with the most advanced technology, the ECM-77B is the smallest and lightest. The uni-directional ECM-66B is the answer to the specific demands of close-miking of musical instruments. The popular ECM-55B incorporates a 10.6mm omni-directional capsule for versatility, while the ECM-44B offers high performance at a lower cost. With each model designed for a specific application, you will be able to find the one that's just right for you. There is also a full line of lavalier accessories available.

Increased Reliability and Convenience

Increased reliability is another important plus for these microphones. Careful attention is paid to make the capsule immune to external noise and adverse ambient conditions. The cable is strengthened to achieve a high resistance to damage caused by over flexing. A readily available "AA" battery is employed for its long life and easy replacement.

ECM-77B *Omni-directional Condenser Microphone*

At only 1/4″ x 1/2″, and a mere 1.5 grams, the ECM-77B is microscopic, yet has a frequency response extending from 40Hz to 20,000 Hz. Increased mechanical impedance using a metal vaporized, fine ceramic backplate provides the ECM-77B's exceptional frequency response. And, by design, the ceramic backplate assures resistance to humidity and temperature extremes for increased reliability. Combined with advanced techniques for sealing the capsule and advanced design for the acoustic housing, the ECM-77B delivers sound that is audibly superior and more pleasing than any other lavalier mic. Ideal for TV broadcasting and stage applications where the highest quality microphone must be inconspicuous, it not only enables unobtrusive miking, but also minimizes glare. Even when hidden inside a costume, its frequency response is wide enough to pick up the voice with no perceptible change in quality, while minimizing the pick-up of rustling noise.

Specifications

- Ultra-mini size
- 2-way powering system (internal battery or external 48 volt DC phantom power)
- Supplied metal-mesh windscreen and metal holder clips
- Microphone capsule size 5.6mm x 12.55mm(1/4″ x 1/2″), 1.5g (0.053 oz)
- Frequency response: 40~20,000 Hz
- Maximum input sound pressure level: 120dB SPL
- Dynamic range: >90dB
- Professional 3-pin male XLR connector

269.95

ECM-66B *Uni-Directional Electret Condenser Mic*

The design of the ECM-66B yields clean, natural reproduction of musical instruments while maintaining excellent isolation from the acoustic environment. Unlike most miniature microphones, this mic has a uni-directional polar pattern, carefully contoured for better control of feedback. The higher voltage supplied to the microphone by the built-in DC-to-DC converter increases the maximum input sound pressure level to an amazing 130dB SPL. This special construction also complements the electret condenser design, resulting in excellent transient response and thus better tonal quality. For added versatility, the ECM-66B can be powered by a single AA battery or external 48 VOLT DC. The battery on/off switch on the power supply helps save the battery. An LED illuminates to show battery condition when the power is turned on. A uni-directional miniature microphone developed specifically for recording musical instruments and voice when superb rejection of the ambient sound is desirable, the ECM-66B will make a welcome addition to your microphone arsenal.

Specifications

- 2-way powering system (internal battery or external 48 volt DC phantom power)
- Supplied urethane windscreen and metal holder clips
- Microphone head: 10.6 x 24.2mm (7/16 x 31/32″), 7g (0.25oz).
- Frequency response: 70 ~ 14,000 Hz
- Maximum input sound pressure level: 130dB SPL.
- Dynamic range: >101 dB
- Connector: Professional 3-pin male XLR

259.95

ECM-55B *Omni-directional Electret Condenser Mic*

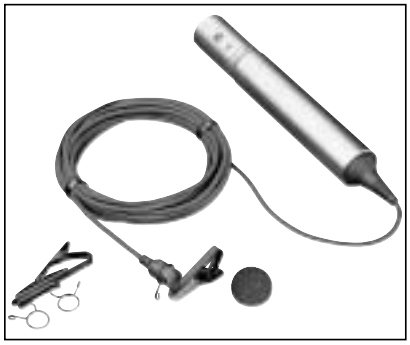
The ECM-55B is an omni-directional lavalier microphone suitable for many different applications ranging from news and interviews to stage dramas and instrument pick-up. Frequency response is a wide 30~18,000 Hz. Above 2KHz, there is a gentle rise in the response to give a touch of presence to any instrument, while offering crisp, clean voice quality without any masking effect when used as a lapel microphone. The directivity is optimized to ensure uniform, dependable output, regardless of the direction of the sound source. The metal mesh windscreen effectively eliminates both wind noise outdoors and pop noise in close-up situations. All this and traditional operation – the ECM-55B may well prove to be your most versatile and useful lavalier microphone.

Specifications

- 2-way powering system (internal battery or external 48 volt DC phantom power)
- Supplied metal windscreen and metal holder clips
- Microphone head: 10.6 x 21mm (7/16 x 27/32″), 6.5g (0.23 oz)
- Frequency response: 30~18,000 Hz
- Max input sound pressure level: 126dB SPL
- Dynamic range: >98 dB
- Connector: Professional 3-pin XLR

229.95

ECM-44B *Omni-directional Electret Condenser Mic*



The ECM-44B makes the exceptional quality of Sony's electret condenser microphones available for budget conscious productions, and a variety of sound reinforcement requirements, such as lectures and demonstrations. Measuring 8.5 x 14.5mm, the ECM-44B reduces the visual distraction to the audience. Designed with the same precision engineering technique developed for improving the sound quality of the ECM-55B, the ECM-44B can be depended upon for clean, bright, yet natural reproduction. To maintain its low cost, this microphone operates on a single AA battery for over 5000 hours of service.

Specifications

- Supplied urethane windscreen and clip
- Microphone head: 8.5 x 14.5 mm (11/32″ x 19/32″), 2g (0.07 oz).
- Frequency response: 40 ~ 15,000 Hz
- Max input sound pressure level: 122dB SPL
- Dynamic range: >90 dB
- Connector: Professional 3-pin male XLR.

149.95

ECM-23F3PR

Uni-directional Mic

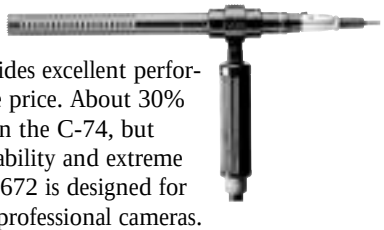
With its electret condenser design, the ECM-23F3PR provides exceptional performance and economy, ideal for many professional applications. A high sensitivity capsule assures superior sound quality as well as improved signal-to-noise ratio. Wide dynamic range is achieved by employing an advanced DC-to-DC conversion design with power supplied by a single AA battery. The ECM-23 F3PR is also equipped with a battery indicator and a battery off switch.

- Electret condenser
- Uni-directional
- 20Hz - 20kHz frequency response
- Low cut filter
- XLR female to 1/4" phone plug cable

199.95

ECM-672

Uni-Directional Condenser Mic



The ECM-672 is a lightweight, short shotgun mic that provides excellent performance at an affordable price. About 30% shorter and lighter than the C-74, but with the same dependability and extreme ruggedness, the ECM-672 is designed for today's DXC series of professional cameras. Its superb controlled directivity assures rejection of ambient and camera noise, while the supplied windscreen reduces wind noise and provides pop protection during extra close miking. A 2-position low-cut switch further contributes to the mic's low noise level and emphasizes desired sound sources by eliminating boominess in the low range. A single AA battery provides over 3,000 hours of operation.

- 2-position low-cut switch
- Supplied windscreen with safety-lock screw
- Battery or phantom power operation
- 50Hz to 16kHz frequency response
- Battery check switch and indicator
- 3-pin XLR connector
- 114dB Maximum SPL
- Dynamic range: >92dB
- Dimensions 11⁄13″ x 12″

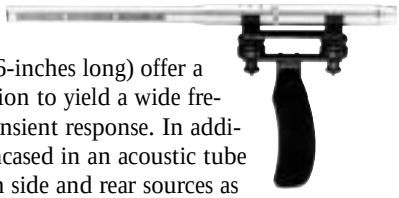
ECM-672
Condenser Microphone **424.95**

AD-72
Blimp/windscreen for ECM-672 ..... **309.95**

CAC-12
Mic Holder for DXC Series Cameras **164.95**

CRS3P
Suspension Cradle **69.95**

C-74/C-76 *Shotgun Microphones*



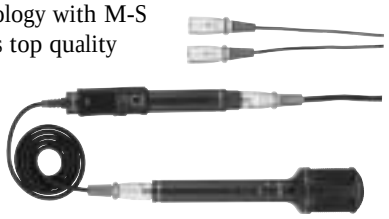
Highly directional shotgun-type condenser mics the C-74 (16-inches long) and C-76 (26-inches long) offer a unique design and superb construction to yield a wide frequency response and clean, crisp transient response. In addition, their condenser capsules are encased in an acoustic tube which rejects sound emanating from side and rear sources as well as background noise and ambient sound. An RF-tuned circuit with a crystal-controlled oscillator frequency of 10 MHz assures low noise.

- Low-cut switch (2 positions)
- 3-pin male XLR connector
- 40~16 kHz frequency response
- >112dB dynamic range
- Uses battery or phantom power
- 50 hrs. of operation with battery/battery check LED
- They both include a windscreen

C-74 ..... **759.95**
AD-74 Blimp for C-74 ..... **329.95**
C-76 ..... **879.95**
AD-76 Blimp for C-76 ..... **359.95**

ECM-MS5

Stereo Electret Condenser Microphone



Combining Sony microphone technology with M-S stereo design, the ECM-MS5 enables top quality stereo miking with natural imaging. With its low profile looks, easy handling, rugged construction and flexible powering capabilities — 12-48v DC or AA battery (with the DC-MS5 Battery Unit)—it enables easy stereo sound pick-up for many applications. A built-in variable matrix allows you to adjust the stereo image from 0 to 127° of pick-up angle. Combined with the optional GP-5 hand grip/shock mount, the MS5 can be either "fish-pole" mounted or hand held. Supplied urethane windscreen and built-in low-cut switch virtually eliminate wind and vibration noises. For applications in severe outdoor conditions the optional AD-72 heavy-duty windscreen provides the ultimate in wind protection.

- 5-pin male XLR connector
- 2-position low-cut switch
- Variable stereo image selector
- Requires 12-48v phantom power
- 70 Hz~to 20 kHz frequency response
- 130 dB maximum SPL
- Dynamic range; >108dB

ECM-MS5 Stereo Condenser Microphone **959.95**

ECM-MS5 PAC A
Includes DC-MS5 battery power unit **1319.95**

ECM-MS5 PAC B
Includes DC-MS5 battery power unit and GP-5 Pistol Grip **1769.95**

DC-MS5 Battery Power Unit **332.95**

GP-5 Pistol Grip/Shock mount **164.95**

AD-72 Blimp/windscreen for ECM-MS5 ..... **309.95**

FISHPOLES

Microphone Fishpoles

Three carbon fiber and four aluminum microphone poles available in various lengths, designed for the location sound and broadcast audio recordist. The carbon poles use ultra lightweight, high modulus carbon fiber tubing that is very thin-walled without compromising their load capacity. The aluminum poles are made from stress-proof, high tempered aluminum alloys with black anodized finish. Telescopic extensions lock into place with a convenient twist-lock system, allowing simple and efficient setting of the required boom length. Complete with unique 1/4" - 3/8" reversible mounting screw, port hole for microphone cabling at both ends and soft rubber hand grip. Gitzo's commitment to fine European craftsmanship ensures smooth gliding movement with minimum bow when poles are fully extended.

Aluminum

Carbon Fiber

REFERENCE# MODEL NUMBER	SECTIONS	MIN LENGTH	MAX LENGTH	WEIGHT	CAPACITY	PRICE
CARBON FIBER						
G1551 Carbon Microphone Boom 142	5	17.75″	57″	1 lb	5 lbs.	**176.95**
G1552 Carbon Microphone Boom 243	5	25 5/8″	79″	1.25 lbs.	5 lbs.	**194.95**
G1553 Carbon Microphone Boom 344	5	33.5″	135 7/8″	1.6 lbs.	5 lbs.	**249.95**
ALUMINUM						
G555 Loisir Fisher	2	31.25″	55″	.75 lbs.	5 lbs.	**76.95**
G556 Weekend Fisher	3	30.75″	79″	1 lb	1.0	**84.95**
G557 Sport Fisher	4	30.75″	103.75″	1.5 lbs.	1.5	**108.95**
G7680 Studex Fishpole	6	31″	150″	2.25 lbs.	5 lbs.	**169.50**

Fishpole Accessories

G11510

GITZO G11510
Microphone shock mount with variable angle mic adjustment, rubber membrane suspension bands that absorb boom handling noise and durable aluminum construction with 3/8″ threaded yoke **101.95**

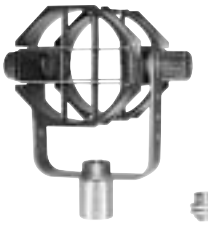
BOGEN 90417
Pivot clamp, yoke assembly allows any Gitzo boom pole to be mounted on a lighting stand **28.95**

BOGEN 3096
10lb counter balance for use with 90417 yoke assembly **38.95**

BOGEN 3366
Thread adapter converts 3/8″ Euro size mounting screw used by boom poles to the 1/2″ American standard threading **6.50**

BOGEN 3071
2-section cine stand compatible to 90417 yoke assembly.....**119.07**

AT8407



AT8415

3760057

AT8410A

Audio Technica AT8407
Universal spring-loaded microphone clamp **15.95**

Audio Technica AT8410A
Shock mount with universal spring-loaded clamp **49.95**

Audio Technica AT8415
Universal low profile shock mount **49.95**

Audio Technica 3760557
Camera "Hot Shoe" thread adapter **9.95**

K6 SERIES

Modular Electret Condenser Microphone System

The K6 series is designed to bring uncompromised studio quality sound and ruggedness to the broadcast and field recording markets. At the heart of the K6 series is the K6 power supply. The K6 is the back end of the multimike system and accommodates a balanced, low impedance 3-pin XLR output connector.

The modular design of the K6 power supply allows you to quickly convert from any one of six microphone capsules simply by unscrewing the current capsule from the K6 and replacing it with another. Each capsule has a different polar pattern making the K6 series flexible enough for any situation.

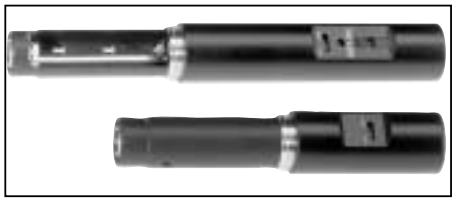
Choose from omni-directional to highly directional shotgun mics suitable for boom pole and camera mounting as well as a lavalier capsule ideal for on air talent and live theater applications. A K6 Power Module plus a few mic capsules gives you the flexibility that would otherwise require investing in a number of individual mics.

What is an Electret Condenser Microphone?

In contrast to other audio frequency condenser microphones, the electret condenser does not require an external polarization voltage to be applied to the capsule. Instead a permanent electric field is "frozen" via special processes on the material of the capsule elements. The permanent electric field of an electret can be compared to the permanent magnetic field of a magnet. A light diaphragm moved by sound in the electric field will cause analogous shifts in the electric charge between diaphragm and back-electret, which after undergoing level and impedance shifts by integrated circuits will give a standard mic level signal.

The back-electret microphones constitute an important class of microphones. For a group of high-quality microphones Sennheiser utilizes the so called back-electret technology. In these microphones the electric field originates at the stationary counter electrode rather than at an electret diaphragm. This technique results in a much improved transient response and superior attenuation of handling noises.

K6/K6P *Powering Modules*



Microphone handgrip and power supply capable of battery or phantom powering any of the microphone capsules in this series. One "AA" battery supplies power for approximately 150 hours. The K6 power supply has an integrated bass roll-off switch and an on/off switch with an LED indicator for battery condition **209.95**

K6P (phantom power only version of K6) **219.95**

MKE2-60 *Omni-Directional Lavalier Capsule.*

This miniature microphone is currently in widespread use on TV news, as well as most major Broadway shows. With its diminutive size and flat (uncolored) frequency response, the MKE2-60 is ideal for unobtrusive, high quality sound pickup. May also be used as a clip-on instrumental mic.

Frequency response: 20Hz-20kHz ±3 dB **239.95**

MKE2-60K6 with K6 Powering Module **439.95**

ME-62 *Omni-Directional Capsule.*

Very broad and smooth frequency response, without proximity effect. The ME62's low handling noise and integrated pop screen make it ideal for interviews and live recording. Great for the recording of ambient sounds.

Frequency response: 20Hz-20kHz ±3 dB **139.95**

ME-62K6 with K6 Powering Module **334.95**

MICROPHONE CAPSULES

ME-64 *Cardioid Capsule.*

Feedback resistant due to the ME-64's well defined directional polar pattern as well as its extended frequency response, make this microphone capsule ideal for use in sound reinforcement or recording in noisy environments. Frequency response: 50Hz - 20kHz ± 2.5 dB

ME-64 Capsule **159.95**

ME-64K6 with K6 Powering Module **349.95**

ME-65 *Super Cardioid Capsule.*

The ME-65 is a super-cardioid handheld microphone especially suited to vocal and speech applications. It has a matte black, anodized, scratch-resistant finish that will look great on camera. The linear directivity across it's entire frequency range will ensure excellent feedback rejection. Can handle extremely high sound pressure levels, has high sensitivity, a wide frequency range and integrated pop filter. Frequency response: 40Hz - 20kHz ± 2.5 dB

ME-65 Capsule **179.95**

ME-65K6 with K6 Powering Module **379.95**

ME-66 *Short Shotgun Capsule*

All sound coming from the rear and sides of the ME-66 is greatly attenuated, thus allowing this microphone to pick out specific sounds in noisy environments. Great for interviews in crowded situations, as a camera microphone for electronic news gathering (ENG), for unobtrusive theater sound reinforcement and as a podium mic. Frequency response: 50Hz - 20kHz ± 2.5 dB

ME-66 Capsule **199.95**

ME-66K6 with K6 Powering Module **399.95**

ME-67 *Long Shotgun Capsule*

The ME-67 is a long shotgun microphone capsule designed with highly directional characteristics that provide an even greater reach than the ME66. It can be used where the microphone must be placed at a distance from the sound source. Frequency response: 40Hz - 20kHz ± 2.5 dB

ME-67 Capsule **239.95**

ME-67K6 with K6 Powering Module **439.95**

APPLICATION	MKE-2 60	ME-62K6	ME-64K6	ME-65K6	ME-66K6	ME-67K6
Speech/Presentation	✓	✓	✓	✓	✓	✓
Reporting	✓	✓	✓	✓	✓	✓
Announcements			✓			
Vocals	✓		✓	✓		
Choirs		✓	✓	✓		
Instruments	✓	✓	✓	✓		
Film/video sound	✓	✓	✓		✓	✓
Tape	✓	✓	✓		✓	✓
Ambience		✓				

MKE-300 *Camcorder Microphone*

The MKE-300 complements the excellent video capabilities of most camcorders with the superior audio they deserve. The electret condenser microphone element delivers sonic clarity and high output. Ideally suited for mounting on camcorders due to its integrated shoe assembly, the MKE-300 is compact and extremely lightweight (2.1 oz.). Given its super-cardioid polar pattern, the MKE-300 has the ability to pick up only those sounds that correspond to the scene being filmed and rejects any disturbing ambient noise. This high directivity also attenuates the sounds made by a camcorder's autofocus and zoom motors. The microphone's suspension mount assembly and integrated windscreen virtually eliminates handling and wind noise. Achieving operating times of over 200 hours using its own built in battery.

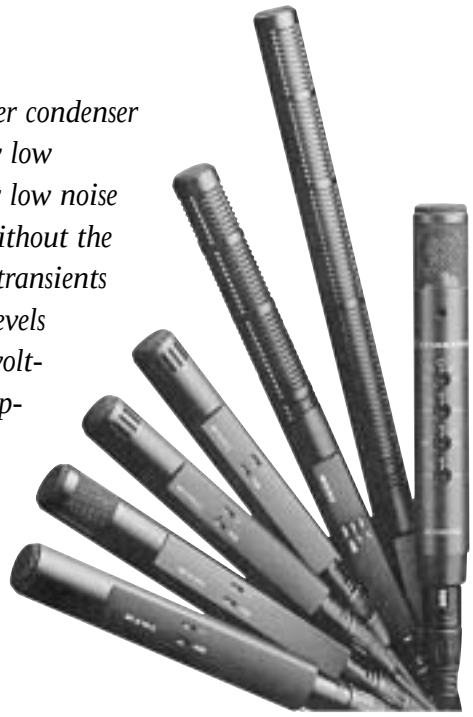
- Super-cardioid/Uni-directional
- Electret condenser element
- Suspension-mounted for rejection of structure borne noises
- Mountable on a wide variety of cameras
- Includes coiled output cable with 1⁄8″ (3.5mm) mini plug

MKE-300 with soft case **169.95**

MKH-20/30/40/50/60/70/416

RF Condenser Microphones

Unlike traditional condenser microphones, the capacitive transducer in Sennheiser condenser microphones is part of a tuned RF-discriminator circuit. Its output is a relatively low impedance audio signal which allows further processing by conventional bi-polar low noise solid state circuits. Sennheiser microphones achieve a balanced floating output without the need for audio transformers, and insures a fast, distortion-free response to audio transients over an extended frequency range. The RF-design yields exceptionally low noise levels and is virtually immune to humidity and moisture. The comparatively low RF-voltage across the elements of the transducer also eliminates arcing and DC-bias creeping currents. Sennheiser employs RF-technology to control residual microphone noise. Optimizing the transducer's acoustic impedance results in a further improvement in low noise performance. Sennheiser studio condenser microphones operating according to this RF-principle have proven their superior ruggedness and reliability in the past decades under every conceivable environmental condition.



MKH-20 Omni-Directional

Low distortion push-pull element, transformerless RF condenser, flat frequency response, diffuse/near-field response switch (6 dB boost at 10 KHz), switchable 10dB pad to prevent overmodulation. Handles 142dB SPL with a high output level. Ideal for concert, Mid-Side (M-S), acoustic strings, brass and wind instrument recording.

MKH-30 Figure-Eight

The symmetrical transducer design of the MKH-30 produces an unusually wide and smooth frequency response. Particularly suited to soloists and small instrumental groups, it can also serve as an 'S' or side microphone in MS stereo applications. As a support microphone it is particularly useful in the effective suppression of sounds from adjacent sound sources.

MKH-40 Cardioid

Highly versatile, low distortion push-pull element, transformerless RF condenser, high output level, transparent response, switchable proximity equalization (-4dB at 50Hz) and pre-attenuation of 10dB to prevent overmodulation. Excellent results have been achieved in vocal applications when used with a pop screen. Recommended for most situations, including digital recording, overdubbing vocals, percussion, acoustic guitars, piano, brass and string instruments, mid-side (M-S) stereo, and conventional X-Y stereo.

MKH-50 Super-Cardioid

The super-cardioid MKH-50 offers a higher attenuation of side and rear sounds than the cardioid MKH-40. It is principally designed for use as a soloist's or spot microphone for applications requiring a high degree of side-borne sound muting and feedback rejection while maintaining the integrity of on- and off-axis sound fields.

MKH-60 Super-Cardioid/Lobe

Short interference tube RF condenser, lightweight metal alloy, transformerless, low noise, symmetrical capsule design, smooth off-axis frequency response, switchable low cut filter (-5dB at 100 Hz), high frequency boost (+5dB at 10kHz) and 10dB attenuation. Handles extremely high SPL (135 dB). Ideal for broadcasting, film, video, sports recording and interviews in crowded or noisy environments. Excellent for studio voice-overs.

MKH-70 Super-Cardioid/Lobe

Extremely lightweight RF condenser, rugged, long shotgun, low distortion push-pull element, transformerless, low noise, switchable presence (+5dB at 10kHz), low cut filter (-5dB at 50Hz), and 10 dB preattenuation. Handles 133 dB/SPL with excellent sensitivity and high output level. Ideal for video/film studios, theater, sporting events, and nature recordings.

MKH-80 Variable Pattern Condenser Mic

The MKH 80 is a variable pattern condenser microphone with five switchable pick-up patterns. It is a superior microphone for any recording application, offering high clarity and the absolute minimum coloration. It is visually unobtrusive due to its compact design.

MKH-416P48-U3 Super-Cardioid/Lobe

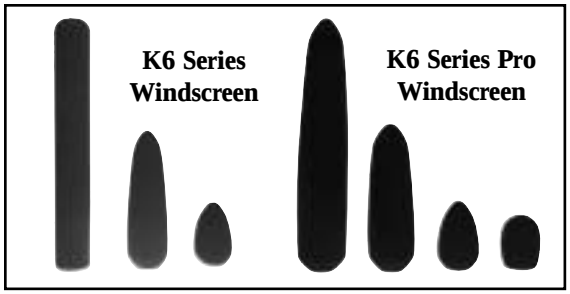
Transformerless, RF condenser designed as a combination of pressure gradient and interference tube microphones. Very good feedback rejection, low proximity effect, 128dB/SPL. Rugged and resistant to changing climate conditions. Ideal for boom, fishpole, and camera mounting as a long-distance microphone for video, film, and studio recording. An excellent ENG microphone for for reporters or as a podium or lectern microphone.

K6 and MKH-SERIES MICROPHONE ACCESSORIES

K6 Series Windscreen

Standard gray foam windscreens reduce wind and popping noise.

- **MZW-64** for ME-62, ME-64, Grey **22.95**
- **MZW-66** for ME-66, Grey **36.95**
- **MZW-67** for ME-67, Grey **42.95**



K6 Series Pro Windscreen

Black velour coated foam windscreens offer even greater protection for reducing wind and popping noise.

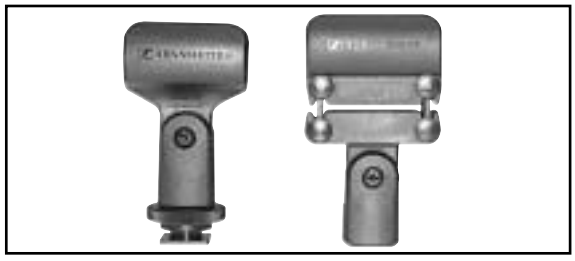
- **MZW-64P** for ME-62 & ME-64 Black **29.95**
- **MZW-65P** for ME-65, Black **64.95**
- **MZW-66P** for ME-66, Black **64.95**
- **MZW-67P** for ME-67, Black **96.50**

MKH Series Windscreen

Made of an open cell foam material that represents the best compromise between minimal effects on the frequency response and maximum protection against wind and pop noise.

- **MZW-41** for MKH-20 and 40, grey **8.95**
- **MZW-61** for MKH-60, black **82.95**
- **MZW-71** for MKH-70, black **129.95**
- **MZW-415** for MKH-416, grey **42.95**

K6 Series Mic Adapters



MZQ6 Camera Mount for K6 Series **38.95**

MZQ200 Stand Mount for K6 Series **28.50**

MZS6 Shock Mount for K6 Series **36.95**

Pistol Grip Shock mount

MZS20-1 Combination shock mount, pistol grip and stand adapter for ME-66 and ME-67 as well as MKH Series Microphones

- Required for mounting in MZW "blimp" windscreen.
- May be boom or stand mounted. Requires MZA-216 adapter (included).
- Includes interchangeable mike clips for MKH-416/MKH-816, or MKH-20 through MKH-70 .....**259.95**

Blimp Windshields (Require MZS20-1)

MZW20-1
Rigid "blimp" windscreen for MKH-20/30/40/50
.....**229.95**

MZW60-1
Rigid "blimp" windscreen for ME66/MKH-416/MKH-60
.....**229.95**

MZW70-1
Rigid "blimp" windscreen for ME-67/MKH-70 .....**269.95**

Long Hair Wind Muffs

Long hair wind muffs greatly reduce high velocity wind-noise when used with MZW series blimp windshields and MZS-20-1 pistol grip/shock mount

MZH20-1 Requires MZW 20-1 "blimp" windscreen. (for MKH-20/30/40/50) **159.95**

MZH60-1 Requires MZW 60-1 "blimp" windscreen. (for ME-66, MKH-416/MKH-60)....**149.95**

MZH70-1 Requires MZW70-1 60-1 "blimp" windscreen. (for ME-66/ME-67 and MKH-70 .....**169.95**

MZA14-P48 Phantom Power Supply

Battery operated 48v phantom power supply with XLR balanced input and output as well as battery test, -10/-20dB pad and 80Hz/ 140Hz high pass filter controls

383.95

PRO SERIES

VHF Wireless Mic Systems

The Azden Pro Series brings you high performance VHF wireless at a price you can afford. Built around a two-channel design that allows selection of the frequency that provides the cleanest signal — for reliable RF performance up to 250 feet away. They all feature two switchable frequencies — 169.445 and 170.245 MHz for a range of 250 feet, high performance VHF transmitters and receivers incorporating SMD (surface mount device) technology. The compact receivers connect to the camera's external mic jack with the attached mini cable and attach to the camera with a supplied shoe mount or Velcro, and have LED indicators for battery condition, transmit and receive operation.

Complete Systems

WHX-PRO
Handheld Mic System

- Completely self-contained VHF wireless handheld microphone/transmitter.
- Has two switchable frequencies for selecting the cleanest sound.
- Delivers crystal-clear sound at a range of more than 200 feet.
- On/off switch with standby position for quiet switching.
- Includes shoe mount and Velcro for mounting the receiver to the camera, and an earphone for monitoring.
- Both microphone and receiver have LEDs for operating verification.

WHX-Pro **149.95**

WLX-PRO
Lavalier Mic System

- Compact, lightweight, transmitter clips to subject's belt.
- Sensitive electret condenser lavalier mic with attached tie clip.
- Two switchable frequencies for selecting the cleanest sound.
- Delivers crystal-clear sound at a range of more than 200 feet.
- Receiver includes shoe mount and Velcro for mounting to the camera, and an earphone for monitoring.

WLX-Pro **134.95**

CAM-3 *Miniature Mic Mixer*

This miniature 3-channel microphone-mixer allows you to add and mix sound from three microphone sources simultaneously.

Only 3-1/4˝ x 1/4˝ x 2-1/8˝, it weighs only 3 ounces, uses no batteries, and attaches to the camcorder or the hand strap....

CAM-3 Mixer.....**44.95**

WMS-PRO *Two Mic System*

- Complete wireless mic system with two microphones (one lavalier, one handheld)
- Delivers crystal-clear sound at a range of more than 200 feet
- Two switchable frequencies for selecting the cleanest sound
- Miniature transmitter attaches to a belt or fits into a pocket
- Receiver includes belt-clip, Velcro, shoe mount for added versatility.

WMS-Pro **143.95**

Components (Receivers)

WR22-PRO

Discrete 2-Channel VHF Receiver

- Unique VHF receiver allows use of two wireless microphones simultaneously.
- Captures the voices of two people at the same time, with each on a separate channel.
- Each transmitter can be from 10 to more than 250 feet from the WR22-PRO receiver.
- Smaller than a pack of cigarettes, the WR22-PRO mounts on a camera with supplied shoe mount or Velcro.
- Operates on 9 volt battery and can be powered (with optional adapters) by 12 volt DC or 120 volt AC.

WR22-Pro **154.95**

WDR-PRO

On-Camera True-Diversity Receiver

A VHF, true diversity receiver that incorporates two complete 2-channel receivers inside the case and two separate antennas to eliminate dropouts and help you create the highest quality audio. Both receivers are set to the same frequency, and the WDR-PRO's circuitry selects the receiver receiving the stronger signal from the microphone and accepts this signal. The LEDs on the WDR-PRO turn from red to green as one receiver, and then the other receives a stronger signal. Unlike the WR22-PRO, you can only use one microphone at a time.

- Diversity circuit avoids sudden dropouts and loss of signal.
- Compatible with all Azden "PRO" series microphones.
- Two selectable VHF frequencies.
- Range of over 300 feet.
- Attaches to your camera with supplied shoe mount or Velcro.
- Balanced output.
- 9-volt battery or 12-volt DC operation.

WDR-PRO **169.95**

The incredible success of the "PRO" Series among videographers has prompted Azden to add 2 new frequencies, 171.105 and 171.845 to the most popular models, WR-22-PRO, and WDR-PRO receivers and the associated WL/T-PRO, WM/T-PRO, and the WX/T-PRO transmitters. These new frequencies will not interfere with Azden's long-established 169.445 and 170.245 MHz frequencies. (When ordering the new frequencies, specify "S" models.

Components (Transmitters)

WM/T-PRO

Handheld Mic/Transmitter

Same self-contained, handheld microphone as used in the WHX-PRO, it can also be used with WLX-PRO, WDR-PRO or WR22-PRO receivers.....**104.95**

WL/T-PRO

Beltpack Transmitter

Same lapel microphone and beltpack transmitter as used in the WLX-PRO, it can also be used with WHX-PRO, WR22-PRO, or WDR-PRO receivers **77.95**

WX/T-PRO

VHF/XLR Plug-in Wireless Transmitter

The WX/T-PRO converts any dynamic microphone with an XLR connector to wireless operation when combined with the WR-22 PRO or WDR-PRO receiver. Adjustable audio level accommodates a variety of microphones. Superb frequency response allow the true sound of your mic to come through. Power on/off, audio mute and status LED complete the full array of on-board controls needed for operational ease. It has a sleek ergonomic design in a durable ABS housing, and can operate for up to 10 hours on a single AA battery **119.95**

PRODUCER SERIES

Portable VHF Wireless System

Designed for professional videographers who need excellent audio reproduction, the 111 Producer Series is a professional VHF wireless microphone system that delivers excellent RF performance and wide frequency response - even under adverse conditions. Designed for "broadcast" use, the preferred VHF band is 174-216 MHz, which offers a greater number of frequencies and therefore less chance of interference. With 25 frequencies available, the Producer series allows use of multiple mics in a concert or studio environment . Working range is 300 feet under average conditions. Offered in instrument, handheld, lavalier or plug-in systems.

111R *Battery Powered Receiver*

The heart of the system, the 111R Receiver features output volume adjustment, balanced or unbalanced output capability and adjustable mute/squelch. It also has headphone output with volume adjustment, removable rubber ducky antenna and 9 volt battery or DC 12 volt power input. It includes a mini - mini output cable, with mini to XLR and mini to phone plug, available as options.

31 LT *Lavalier Bodypack Transmitter*

- Choice of high quality plug-in omni or uni-directional electret condenser microphone.
- Input level control for maximum flexibility.
- Constructed of durable ABS housing.
- 3-position power switch with standby for muting audio.

31 HT
Handheld Transmitter

- High quality uni-directional dynamic element.
- Unique rubber-coated durable ABS housing for comfortable feel and low handling noise.
- Has 3-position power switch with standby for muting the audio.
- Supplied with additional range-extender antenna.

31 XT
Plug-In Transmitter

- Unique plug-in transmitter turns any dynamic "wired" microphone with XLR output into a wireless handheld microphone.
- Input level control for maximum flexibility.
- Controls include power on/off, audio mute and status LED.

31 IT
Instrument Transmitter

- Fixed 1/4-inch cable for electric guitars and basses.
- Durable ABS housing.
- Input level control for maximum flexibility.
- 3-position power switch with standby for muting audio.

Prices

111LT Lavalier system includes 111R receiver, 31LT bodypack transmitter and EX503 lavalier microphone.....**219.95**

111XT Plug-in system includes 111R receiver and 31XT plug-in transmitter.....**279.95**

111HT Handheld system includes 111R receiver and 31HT handheld transmitter **249.95**

111IT Instrument system includes 111R receiver and 31IT instrument transmitter.....**239.95**

31 LT Lavalier Bodypack Transmitter.....**72.50**

31 XT Plug-In Transmitter **129.95**

31 HT Handheld Transmitter **116.50**

31 IT Instrument Transmitter **63.95**

EX-503 Omni-directional lavalier microphone **23.95**

EX-505U Uni-directional lavalier microphone **44.95**

400 SERIES

400 UDR *Portable True Diversity UHF Receiver*

Redefining the parameters of cost-effective, high-band portable wireless microphone systems, the 400 UDR is a PLL synthesized UHF receiver with 63 user-selectable frequencies within the 794-806 MHz range. True diversity design houses two complete separate receivers in an all metal casing, to give you a fully redundant "true" diversity scheme. It also features LED indicators for AF peak level, A or B antenna reception and battery condition, and has volume adjustable XLR and headphone outputs. Ideal for camera mounting, it runs on 4 AA batteries or 12v DC input via its 4-pin XLR connector. Supplied with heavy duty Velcro.

41BT *Bodypack Transmitter*

63 user-selectable channels, input level control, standby switch, Hiroshi 4-pin connector and metal clip. Available with EX503H or Sony ECM44H lavalier microphones.

41HT *Handheld Mic Transmitter*

Newly-designed handheld with super-cardioid uni-directional mic element or Audix OM3 head and 63 user-selectable channels. Uses 2 AA alkaline batteries or Azden ni-cads with the AMC-2A Charging Station.

41XT *Plug-in Transmitter*

63 user-selectable UHF channels. Allows you to use your favorite dynamic microphone with an XLR output. Adjustable output volume control, power on/off and audio mute switches. LED AF Peak and Power indicators.

Breaking new ground, Azden's UHF receiver and microphone/transmitters offer superb performance and features, at prices far below what you would expect to pay for UHF.

411DRH *UHF Half-Rack Receiver*

A crystal-controlled, PLL synthesized UHF receiver with 63 user-selectable channels in the 794-806MHz band. Up to 9 systems may be used simultaneously. It has both 1/4 inch and XLR output jacks, volume adjustment.

412UDR *Rackmount UHF Receiver*

A full single-space rackmount crystal-controlled, PLL synthesized UHF receiver with 63 user-selectable.channels in the 794-806 MHz band. Up to 9 systems can be used simultaneously. It has detachable antennas mounted on BNC connectors front and rear for greater flexibility and both 1/4 inch and XLR outputs with volume adjust.

422UDR *Dual Channel Rackmount UHF Receiver*

Dual-channel rackmount crystal-controlled, PLL synthesized UHF receiver with 63 user-selectable channels in the 794-806MHz band designed for two transmitters simultaneously. External squelch, mic/line switching and antenna attenuation with both 1/4 inch and XLR outputs with volume adjust for each channel. Cascading antenna feature eliminates the need for an antenna distribution amplifier and Lucite frequency cover prevents accidental channel switching.

UHS SYSTEMS

400LT Lavalier Mic System, includes 400UDR receiver, 41LT beltpack and EX-503H lavalier mic **499.95**

400LT/S Lavalier Mic System, includes 400UDR receiver, 41LT beltpack and Sony ECM-44H lavalier mic **599.95**

400HT Handheld Mic System, includes 400UDR receiver and 41HT handheld mic **519.95**

400HT3 Handheld Mic System, includes 400UDR receiver and 41HT handheld mic with Audix OM3 head **599.95**

COMPONENTS

41BT	Bodypack Transmitter	**179.95**
41HT	Handheld Mic Transmitter	**179.95**
41XT	Plug-in Transmitter	**199.95**
400UDR	Portable True Diversity UHF Receiver	**359.95**
411DRH	UHF Half-Rack Receiver	**329.95**
412UDR	Rackmount UHF Receiver	**349.95**
422UDR	Dual Channel Rackmount UHF Receiver	**689.95**

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151 VR

VHF Wireless Microphone System

Ideal for schools and beginning videographers, the 151 VR is an extremely affordable yet high-quality wireless mic system. It operates on VHF high-band frequencies for interference-free performance. It features a 120 dB dynamic range and Nady's patented companding circuitry for crisp, clear sound. Transmitters (beltpack or handheld) feature transmitter on/off, audio on/off and input level controls. Available with a choice of four channels, the system has an operating range of 200´— even in adverse conditions.

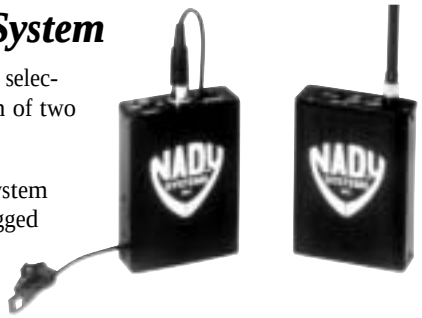
- Ruggedly built, the 151 VR receiver is powered by a 9V battery. LEDs indicate low battery and received signal.
- Has 3.5 mm audio output, headset connectors and an attached softwire antenna.
- Controls include output level and mute adjust.
- The 151 transmitter bodypack clips on your belt, while the attached E-701 lavalier microphone is positioned near the speaker's mouth on a tie, coat, shirt, etc.
- The HT-3 is a sleek, tapered and rugged handheld mic with an optimally matched mic element. The transmitter is powered for 20 hours by a 9v battery.

351 VR *Compact VHF Wireless Mic System*

The Nady 351 VR wireless mic system offers more professional features in a mid-priced system. Among others it features a receiver the size of an audio cassette and is available in four different factory pre-set VHF frequencies for multi-system miking. It features a 120 dB dynamic range and Nady's patented companding circuitry for crisp, clear sound. Operating range of up to 200 feet in adverse conditions, and up to 1500 feet line of sight.

- Ultra compact receiver attaches unobtrusively to a camcorder with the supplied shoe mount, or clips to your waist.
- Both the handheld and lavalier transmitters feature transmitter on/off switch, audio on/off switch, level trim and low battery LED.
- 351 VR/LT Lavalier System features the E-701 electret condenser lavalier microphone attached to a Nady LT-3 bodypack transmitter.
- Available in six VHF frequencies (170–218 MHz)
- 351 VR receiver is powered by a 9-volt battery and has LEDs to indicate low battery and received signal. Controls include output level and mute adjust. There are 3.5 mm audio output and headset connectors and an attached softwire antenna
- 351 VR/HT Hand-Held System includes the sleek, wireless HT-3 handheld mic. The HT-3 has a tapered, balanced design and rugged, all metal case.

551 VR *Professional Two-Channel VHF Wireless Mic System*



For the advanced videographer who requires unsurpassed audio quality, the 551 VR provides two user selectable frequencies to virtually assure availability of a clear channel. It also allows simultaneous operation of two 551 VR systems in the same location. Operating range of 200 feet even in adverse conditions.

- Ultra compact 551 VR receiver is worn comfortably and unobtrusively with the supplied belt clip. The receiver has a balanced audio output jack and a headphone output.
- 120 dB dynamic range and patented companding circuitry for crisp, clear sound.
- Transmitters feature transmitter on/off switch, audio on/off switch, level trim and low battery LED. Each operates on one of the several available VHF frequencies.
- The 551 HT handheld system includes the sleek and rugged HT-3 wireless handheld microphone. The HT-3 has one channel.
- Ultra compact 551 LT lavalier bodypack transmitter has two selectable channels features an all metal case and a mini XLR connector to accept any compatible electret condenser lavalier mic.

151 VR/LT Lavalier system **119.95**

151 VR/HT Handheld system.....**149.95**

351 VR/LT Lavalier system **149.95**

351 VR/HT Handheld system.....**184.95**

351 VR/LINK Receiver and the Link Snap-on Transmitter..**249.95**

551-VR/LT Lavalier system **419.95**

551-VR/Link Receiver and the Link Snap-on Transmitter ..**419.95**

551-VR/HT Handheld system **449.95**

THE LINK

Snap-on VHF Wireless Mic Transmitter

The Link is an unobtrusive transmitter that attaches to any hardwired dynamic microphone with an XLR connector, adapting it to VHF wireless operation. The transmitter also provides 9-volt DC phantom powering for lavalier condenser mics. The Link is compatible with all Nady VHF portable and rackmounted wireless receivers.

- Features a rugged, metal cased transmitter module that provides superb audio quality and great sound. The Link utilizes Nady's patented companding noise reduction circuitry for an industry best 120 dB dynamic range, to deliver clean, quiet,natural sound that is as good as a cable.
- In addition Nady's optional Tone Squelch is available. This feature effectively eliminates interference from other RF sources when the Link is not in use and your receiver is turned on.
- For reliable performance, the Link provides the maximum output power allowed by the FCC and an extended wireless operating range—250 feet in adverse conditions and 1,000 feet line of sight.
- The Link is powered for 8-10 hours with a 9-volt battery and has an low battery LED indicator.
- Controls include transmitter, and "no pop' audio on/off and level trim adjust.
- To ensure stable microphone operation the Link uses a spring loaded, positive locking XLR microphone connector

661-VR *Portable Multi-Channel UHF Wireless Mic System*

The 661 VR is an advanced portable, 160-channel wireless microphone system that gives you a clear channel anywhere. It offers maximum output power for extended wireless operation, incorporates Nady's Tone Squelch and is compatible with Nady's ENG-12 snap-on transmitter.

- Utilizes state-of-the-art frequency synthesis, it has 160 UHF channels within the 477-951 MHz frequency range to assure a clear operating channel in any location.
- UHF RF link (up to 20dB quieter than other UHF systems) and patented companding circuitry for crystal clear sound with no hiss or distortion. Dynamic range is over 120dB.
- All metal 661 VR UHF receiver attaches to a video camera or clips to a belt. It has balanced audio output, headset output, low battery LED indicator, mute adjust and a flexible user replaceable antenna.
- Compact LT-60 bodypack transmitter is housed in an all metal case and has a locking mini XLR connector for suitable lavalier microphone. It also includes Tone Squelch and a user replaceable miniature rubber duck antenna.
- Sleek, lightweight HT-60 handheld features a unique modular design that allows mic elements to be changed in the field without soldering. Power, audio, channel group and channel selector level adjust controls and battery indicator are recessed in the mic base.

ENG-12 *Snap-on UHF Wireless Transmitter*

The ENG-12 is a multi-channel UHF transmitter module with XLR connector that adapts any hard-wired dynamic microphone with an XLR connector to a professional 160-channel UHF wireless microphone.

- The ENG-12 transmitter is compact and lightweight, yet features a rugged, all metal housing. It provides a locking XLR connection for any dynamic mic, and 9 v DC phantom power for lavalier mics.
- State-of-the-art frequency synthesis and 160 user-selectable UHF channels, ensures clear operating channel in any location.
- For superb audio the transmitter is equipped with Nady's RF link companding noise reduction circuitry and tone squelch.
- Ideal for use with the 661 VR portable UHF receiver.
- Provides maximum output power for extended operating range-– a minimum of 200 feet in adverse conditions and up to 1500 feet line of sight

661VR/LT Lavalier system (no microphone) **799.95**

661-VR/ENG12 Plug-in transmitter system.....**899.95**

NADY AT831 Uni-directional lavalier microphone **124.95**

NADY E-701 Electret condenser lavalier microphone **34.95**

CR-12 SYSTEM

High-Quality UHF On-Camera Wireless Mic System

The CR-12 System offers professional videographers high-quality UHF wireless without breaking their budget. An economical UHF component system, the CR-12U receiver features compact construction with balanced and unbalanced outputs for connection with any on-camera audio system. Able to run 6-8 hours on a single 9v battery, the CR-12U also features a headphone output with level control, squelch level control and an audio level control with a selectable mic/line option. Systems are available with either the UB-12 beltpack transmitter and omni-directional lapel mic or with the UT-12 plug-in transmitter.

CR-12U Receiver

- UHF camera mountable receiver
- Operates in the 710 - 722 MHz UHF frequency range
- Squelch level control
- Audio level control with mic/line selector switch
- Headphone output with level control
- Balanced and unbalanced output.
- Runs 6-8 hours on a 9v a battery. Will also accept 9 - 24-v DC phantom power.

UB-12 Beltpack Transmitter

UHF beltpack transmitter with TA4M connector, it can be used with a wide variety of lapel microphones. Runs 12-16 hours on a single 9v battery.

UT-12 Plug-in Transmitter

UHF plug-in transmitter with a balanced XLR mic input, the UT-12 can be used with any dynamic handheld microphone or mic that requires up to 5v DC phantom power. Features separate power on/off and mic mute, gain control ensures compatibility with a wide variety of microphones. Runs 8-10 hours on a 9v battery.

UHF Systems

CR-12L System:
Single channel UHF camera mountable lapel microphone system. Includes, CR12U receiver, UB-12 Beltpack transmitter and WLM-10 omni-directional lapel mic **349.95**

CR-12T System:
Single channel UHF, camera mountable plug-in microphone system. Includes, CR12U receiver, UT-12 plug-in transmitter for most handheld dynamic microphones **389.95**

ENG-100 SYSTEM

100-Channel UHF Wireless Microphone System

The versatility of the ENG-100 receiver makes this the UHF system of choice. Designed to perform reliably even under the harsh conditions of news gathering, the compact but rugged receiver offers 100 channel frequency agility and delivers superior audio performance on any of 100 selectable channels in the 668 to 746 MHz frequency range. Two integral antennas and a built-in Posi-Phase diversity system assure reception in the most difficult situations. The ENG-100 also features an internal headphone amplifier and an adjustable audio output control to accommodate any situation from news gathering operations to live performances. Equally suited for corporate, industrial and event video applications, the ENG-100 is available in two frequency groups; Group A which corresponds to TV channel 54 and Group B which corresponds to TV channel 55.

ENG-100

UHF Synthesized Camera Mountable Receiver

- Operates in the 668 - 722 MHz range
- Posi-Phase II smart diversity reception
- Posi-Squelch III audio suppression, tone code squelch
- XLR mic output and headphone monitor output jack
- Operates on 2 AA batteries or external 9 to 17-volt DC power source
- Audio level control with mic/line selector switch

LT-100

UHF Synthesized Beltpack Transmitter

- 100 selectable frequencies
- Silent single switch on/off
- Four segment battery life indicator
- TA-4M mic jack
- Hi/low transmit power output
- Operates on 2 AA batteries
- Has external charging pins for use with BC-100 drop-in charger

ENG-100L System

Includes: ENG-100 receiver, LT-100 beltpack transmitter and ELM-22S omni-directional lapel microphone **679.95**

Optional Handheld Transmitters

SH100/CE8 Handheld transmitter with Telex CE8 capsule.....**409.95**

SH100/OM3 Handheld transmitter with Audix OM3 capsule **424.50**

ENG-500 SYSTEM

2-Channel UHF Wireless Microphone System

Designed for electronic news gathering and electronic field production, the ENG-500 offers top-of-the-line performance with crystal-controlled frequency agility, Posi-Phase true diversity operation and tone-coded squelch. The first in its class to offer all of these features plus superior audio performance, the ENG-500 is also built tough with an all metal aircraft alloy case and water resistant seal. Convenient side-mounted controls and indicators allow the operator to view receiver functions while shooting. Two removable 1/4" wave antennas are instantly field replaceable with optional Telex ALP-TM log periodic antennas, whereby an additional 6 dB of signal gain can be realized.

UT-500 Plug-in Transmitter

- Crystal-controlled 2-channel frequency agility in the UHF frequency range for maximum audio performance
- Plugs into any standard dynamic microphone.
- Aircraft alloy case
- Low battery/over-modulation indicator
- Separate power on/off and mic mute
- Provides +6v DC phantom power for condenser mics
- Operates on single 9-volt battery

ENG-500 Receiver

- 2-channel crystal controlled frequency-agile camera mountable receiver operates in the 520 - 608 MHz frequency range
- Posi-Phase true diversity operation
- Controls and indicators are conveniently side mounted allowing you to view receiver functions while shooting
- Balanced XLR output with mic/line selector switch and 3.5mm headphone jack
- 4-segment RF/audio/battery level indicator as well as a diversity phase indicator
- Single 9v battery or 9-17v DC (plug adapter included) operation
- Rugged metal aircraft alloy case
- 2 removable antennas

ENG/UT500 .....**1799.95**

Optional Accessories for the ENG-100/ENG-500

DC-GM Anton Bauer "Sandwich" Mount

Allows the ENG-100 or ENG-500 to be sandwiched between the camera and an Anton Bauer battery. Fully compatible with Anton Bauer Gold Mount **209.95**

DC-SM- Anton Bauer Side Mount Kit

Attaches ENG-100 or ENG-500 to Anton Bauer brand side mount accessory **39.95**

DC-NP1 Standard NP-1 Mount Kit

The DC-NP1 allows the ENG-100 or ENG-500 to be mounted on standard NP-1 battery holder (easily installed and removed with thumb screws. **39.95**

DC-UM Universal Strap Mount Kit

The DC-UM is a universal mounting device that fits virtually any video camera. The adjustable, self-locking Velcro strap ensures a secure mount. **39.95**

ALP-450- Directional Log Periodic antenna that covers 450-900 MHz. Unique forward coverage pattern increases signal gain up to 5 dB. Supplied with mounting hardware for wall or mic stand, and 10-feet of low loss coaxial cable **134.95**

ALP-TM- ALP-450 log periodic antenna mount kit **147.95**

CC-UT- Leather pouch with belt clip for UT-500 .....**39.95**

AN-HTW/HTY/HTR/HTG- Replacement antennas for ENG-500 .....**33.95**

U100 SERIES

UHF Multi-Channel Wireless Mic System

UHF camera mountable with a rock-solid RF design and rugged metal construction, the U100 system is available with either a body-pack or plug-on transmitter. Each system features the ATW-R100 true diversity receiver and operates in the channel 57 to 59 TV range avoiding upcoming DTV stations in the channel 67 to 69 range. The ATW-U101 system includes the ATW-T101 body-pack transmitter with standard Switchcraft TA5F input connector that is compatible with several lavalier and headworn mics. The ATW-U102 system includes the ATW-T102 XLR plug-on transmitter compatible with all dynamic and most self powered microphones.

System Features:

- 100 Phase Lock Looped (PLL) -synthesized channels selectable via switches on receiver and transmitter.
- 300´ operating range typical
- Frequency-agility allows operation in both analog and DTV operating environments.
- 100 Hz to 15 kHz frequency response
- Operates in the less crowded 728.125 - 740.500 MHz UHF frequency band or TV channels 57-59
- Hinged battery doors on receiver and transmitters.

ATW-R100 Receiver

- True diversity operation automatically selects the better signal from two independent receivers, reducing dropouts.
- LEDs indicate A or B antenna status, AF peak, and power status.
- XLR balanced output with level control.
- Removable antennas (BNC) connectors.
- Operates on two internal 9 v batteries (for approx 6 hours) or on external 12 v DC.
- Headphone jack with volume control.
- Helical filter design improves rejection of unwanted signals.
- Measures 3.35 W x 4.53 H x 1.42˝ D and weighs 12.0 oz.

AT831

ATW-T101 Beltpack Transmitter

- Features industry-standard Switchcraft 5-pin mic input connector.
- Runs on a single 9V battery with approximately 8-10 hours battery life
- Measures 2.52 W x 3.78 H x 0.91˝ D and weighs 5 oz.

ATW-T102 Plug-on Transmitter

- 3-pin XLRF-type input connector compatible with all dynamic and most self powered microphones
- Runs on a single 9 volt battery with approximately 7-9 hours battery life
- Measure 1.57 W x 4.32 H x 1.57˝ D and weighs 6.2 oz.

U100 Wireless Systems

ATWU101
Includes ATW101 Beltpack Transmitter and ATW-R100 Receiver (no mic) **729.95**

ATWU101830
Includes ATW101 Transmitter, AT831cT5 lavalier mic and ATW-R100 Receiver **769.95**

ATWU101831
Includes ATW101 Transmitter, MT830cT5 lavalier mic and ATW-R100 Receiver **769.95**

ATWU102
Includes ATW102 Plug-on Transmitter and ATW-R100 Receiver **749.95**

U100 Components

ATWT101 Beltpack Transmitter ..**399.95**

ATWT102 Plug-on Transmitter **439.95**

ATW-R100 True Diversity Receiver **468.95**

AT831cT5
Miniature cardioid lavalier mic **79.95**

MT830cT5
Subminiature omni-directional condenser lavalier mic **76.50**

MT830cT5TH
"Theater" model (same as above except in beige) **79.95**

VP3 SERIES

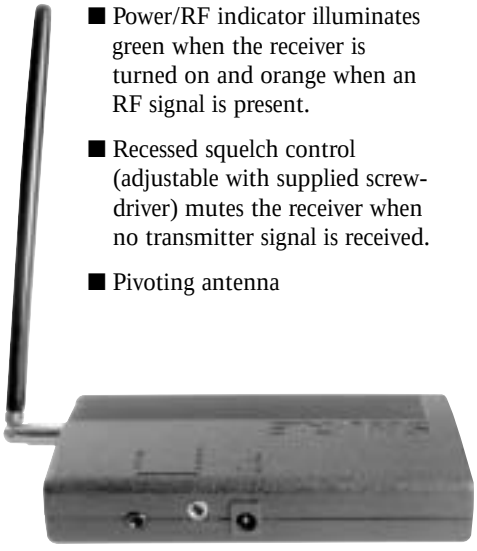
VHF Wireless Microphone System

Portable, camera mountable wireless system operating in the 169.445 to 216 MHz VHF, the VP3 offers beltpack or handheld transmitters using either the WL93 omni-directional lavalier or the world standard SM58 uni-directional handheld microphone. A total of 10 channels are available, and up to six systems can be used simultaneously in the same environment. The VP3 wireless system runs on 9-volt batteries and connects to either balanced or unbalanced camcorders and mixers. Ideal for documentary, broadcast and event videography, the system operates up to 300 ft. and features a frequency response of 80Hz to 15kHz ± 3 dB.

FEATURES

VP3 Receiver

- Flexible mounting options include removable belt clip, Velcro or camera shoe adapter.
- Runs for 7 hours on one 9-volt battery
- Accepts 12 v DC power from any well–filtered 12 v DC (at 100 mA) power supply such as Shure's PS/ 20 or PS/ 20E.
- Stereo/mono compatible 1/8˝ (3.5mm) mini plug headphone output with level control.
- 3- pin "Tini Q- G" audio output connector provides balanced output to video camera or audio mixer when used with the optional WA450 XLR male adapter.
- Red peak light indicates audio overload or flickers when receiving loud signals
- Power/RF indicator illuminates green when the receiver is turned on and orange when an RF signal is present.
- Recessed squelch control (adjustable with supplied screwdriver) mutes the receiver when no transmitter signal is received.
- Pivoting antenna



T2/58 Handheld Microphone Transmitter

- Includes SM58 cardioid mic capsule
- Audio Hi/ Lo gain switch, in the battery compartment, controls the audio level of the microphone.

T2/58 and T1 Transmitters Both Feature

- Microphone On/ Off switch mutes the mic without having to turn the transmitter off. This eliminates "pop" or "thump" sounds that occur when the mic is turned on and off.
- An indicator illuminates when the power is on and the battery is good (runs up to 18 hours on a 9v battery). A red light glows when the battery has less than one hour's worth of power.

T1 Body-Pack Transmitter

- Tini Q-G microphone jack connects to the supplied WL93 subminiature omni-directional lavalier mic or the WA310 XLR microphone adapter cable.
- Flexible antenna wire is permanently attached to the transmitter.
- Audio level control is achieved with the supplied small screwdriver.
- Includes belt clip allowing it to be worn on a belt or waistband.

VP3 Wireless Systems

VPL93 Lavalier System:
T1 transmitter, WL93 lavalier mic, VP3 receiver, WA460 TA3F to 3.5mm stereo mini cable, (2) 9v batteries, velcro mount and camera "Hot Shoe" mount **284.95**

VPH58 Handheld System:
T2/58 transmitter, and VP3 receiver, WA460 TA3F to 3.5mm stereo mini cable, (2) 9v batteries, velcro mount and camera "Hot Shoe" mount..... **324.95**

Components & Accessories

VP3 Receiver **159.95**

T2/58 Handheld transmitter **227.50**

T1 Belt pack transmitter (no mic) ..**125.95**

WL93 Subminiature lavalier mic **69.95**

WA450 Balanced Tini-Q-G to XLR male cable for VP3 receiver **22.50**

WA310 Microphone adapter cable for T1 transmitter **18.95**

WA360 In-line audio switch for T1 transmitter.....**54.50**

WA395 System carrying case **18.95**

PS20 AC Adapter for VP3 receiver **8.95**

UT SERIES

UHF Diversity Wireless Mic System

Incorporating Shure's exclusive Marcad Diversity technology, the UT4 receiver seamlessly combines audio signals from two independent receiver sections—allowing the UT series to virtually eliminate dropout and switching noise. Operating in the UHF frequency range between 596 to 862 MHz, there are lavalier, handheld and headworn mic systems available— up to eight can be used in the same area — giving you freedom and flexibility to suit any application. Shure's "battery saver" technology provides up to 12 hours of battery life making it ideal for live sound reinforcement, conference rooms and other installation applications that require long uninterrupted system performance.

FEATURES

UT4 Receiver

- Exclusive MARCAD (MAximum Ratio Combining Audio Diversity) circuitry continuously processes the RF signal from each antenna and combines them to produce one signal of optimum quality.
- Unbalanced 1/4″ phone plug and balanced XLR connectors for simultaneous output to different devices. XLR output is selectable between mic and line level.
- Multiple receivers can be stacked or rack-mounted, with two receivers fitting into the optional URT rack mount tray.
- Three-inch rubberized antennas perform as well as telescoping antennas but with greater durability.
- Yellow diversity A/B lights glow when RF (radio frequency) signals are received from the UT1 or UT2 transmitter. When only one light is glowing, the signal is being received on only one antenna. When both lights are glowing, the UT4 is receiving signals on both antennas.
- Green light indicates that the receiver is plugged into an electrical outlet. A red audio peak indicator light flickers when the input signal from the transmitter approaches clipping.
- Volume knob increases or decreases the volume of the receiver output.
- Noise squelch circuit analyzes signal quality as opposed to signal strength, allowing the circuit to discriminate between noise and desired signal. This reduces noise burst due to environmental RF noise.

UT1 Body-Pack Transmitter

- Input attenuation switch selects between 0 dB and –20 dB attenuation, for greater range of audio gain control.
- Audio gain control accommodates various input signal strengths. A small screwdriver is supplied to make adjustments.
- Tini Q-G connector allows connection to a variety of lavalier and headset microphones and cables
- Flexible wire antenna is permanently attached to the bottom of the UT1 body-pack transmitter.

UT1 and UT2 Transmitters Both Feature

- Transmitters work at a distance of up to 300 ft. (100 meters) from the receiver.
- Red light warns you that there is less than one hour of battery life left
- 9-volt battery operation, a green light indicates that they are on.
- On/Mute switch prevents unwanted sounds from being picked up without turning the transmitter off.

UT2 Handheld Transmitter

- Power On/Off switch is recessed to prevent it from being accidentally turned off.
- Audio gain control hidden in battery compartment, allows sound levels to be matched with the transmitter for better performance.

Wireless Systems (all include UT-4 Diversity Receiver)

"The Presenter" Systems

UT-1493: UT-1 beltpack transmitter and WL-93 omni-directional lavalier mic

UT-1484: UT-1 beltpack transmitter and WL-184 super-cardioid lavalier mic

UT-1485: UT-1 beltpack transmitter and WL-185 uni-directional lavalier mic

"The Headset"

UT-1420: UT-1 beltpack transmitter and WH-20 dynamic cardioid headset mic

"The Vocal Artist"

UT-2431: UT-2 handheld transmitter and Beta Green 3.1 dynamic cardioid mic

UT-2458: UT-2 handheld transmitter and SM-58 dynamic cardioid mic

UC SERIES

100-Channel UHF Diversity Wireless Mic System

100 user-selectable frequencies combined with Shure's tried and true MARCAD Diversity technology creates an exceptionally reliable wireless system, free of interference and drop outs—even in the most congested environments. Easy to use, the UC Series incorporates microprocessor-controlled, Phase Locked Loop (PLL) circuitry for a clear, steady signal. It offers two UHF frequency ranges (692-716 and 782-806 MHz), 500-ft. minimum working range, and 45Hz to 15kHz frequency response. Ideal for a wide range of applications, up to 16 systems can operate simultaneously and is available with a number of handheld, lavalier and headworn mics.

UC4 Receiver

- 1/2 rack space design, includes hardware for single and dual rack mounting.
- Tone Key Squelch Circuitry prevents unwanted noise from entering including the "pop" noise that occurs when the transmitter is turned on or off.
- Dual RF meters indicate received signal strength at each antenna, making it easier to identify "dead spots" in the performing area. Also has a LED low battery transmitter warning
- Adjustable low–frequency roll-off (high pass filter) reduces undesirable low–frequency signals. Shelving EQ allows boost or cut of the mid to high–frequency range, to compensate for off–axis lavalier microphones and for adjusting the sibilance of vocal microphones.
- Group/Channel Display indicates the current Group and Channel settings.
- Audio Meter lets you monitor received audio level helping to optimize the transmitter gain setting.
- BNC–type connectors provide connection to the supplied antennas or to the coaxial cable used with a distribution amplifier.
- Logic In/Out provides logic interface with external devices such as the Shure SCM810 automatic mixer and AMX or Crestron compatible control systems.

UC-1 Body-Pack Transmitter

- Available with a wide variety of lavalier, headworn and instrument mics or cables
- With the UA-101 Remote Mute Switch, you can remotely mute the body pack during a performance.
- Two position switch lets you select either 0 dB or –20 dB attenuation

UC-2 Handheld Transmitter

- Available with choice of interchangeable microphone heads, including: SM-58 cardioid dynamic, BETA 58A super-cardioid premium dynamic, SM87 super-cardioid condenser and BETA 87 super-cardioid premium condenser.

UC-1 Body-Pack Transmitter Systems (all include the UC-4 Receiver)

UC-1493 with WL-93 omni-directional lavalier mic
UC-1483 with WL-183 omni-directional lavalier mic
UC-1484 with WL-184 super-cardioid lavalier mic
UC-1485 with WL-185 cardioid lavalier mic
UC-1420 with WH-20TQG cardioid headworn mic
UC-1498 with WM-98 cardioid instrument mic with A98KCS universal horn clamp
UC-1416 with WCM-16 hypercardioid headworn mic

UC-2 Handheld Transmitter Systems (all include the UC-4 Receiver)

UC-2458 with SM58 cardioid dynamic mic element
UC-24B58 with Beta 58 premium super-cardioid dynamic mic element
UC-2487 wth SM87 super-cardioid condenser mic element
UC-24B87 with Beta 87 premium super-cardioid condenser mic element

Accessories

UA-101 Remote Mute Switch
Mutes audio and/or RF from bodypack transmitter during performance

UA-500 Remote Mount Antenna Kit
For mounting one 1/2 wave antenna

UA-600 Front Mount Antenna Kit
Mounts antennas for the receiver

UA-220 Passive Antenna Splitter/Combiner
Splits two antennas for use with two diversity receivers and/or combines four antennas into two antenna inputs

UA-845 Antenna Power/Distributor
Provides connection for up to five diversity receivers and supplies power for up to four receivers; uses only two antennas.

VM-1/UM-1

On-Camera Micro Diversity Wireless Systems

With their compact, lightweight, and streamlined design, the VM-1 or UM-1 are ideally suited for professional videography. They offer great performance along with a host of smart, practical features. Up to six systems can be used simultaneously in either VHF (VM-1) or UHF (UM-1) bandwidths. Designed for camera mounting, either system offers a wide variety of lavalier, handheld and headset microphones to suit any application from video deposition and wedding videography to broadcast. Virtually identical (except bandwidth) the VM-1 has unbalanced mini-plug output, the UM-1 XLR-balanced output.

FEATURES

VM-1/UM-1 Micro Diversity Receivers

- They run up to 12 hours on a single 9 volt battery
- 50Hz to 13kHz frequency response ±3dB
- Both offer 1/8″ (3.5mm) stereo headphone output with level control
- A/B LEDs indicate whether the left or the right receiver channel is currently in use.
- Three multi-color LEDs (low, medium and high) are switchable to indicate either battery power or RF signal strength and can be disabled to conserve battery power.
- Peak LED indicator lights red when approaching clipping which may cause audible distortion
- Battery compartment houses the on/off switch and a Variable Squelch control (with plastic screwdriver) that sets the maximum system range before drop out.
- Both antenna mountings allow full rotation for flexibility in placement and can be folded inward for transporting
- Attaches to camera using supplied Velcro
- DC input can accept an input voltage between 6 an 13 volts from a video camera
- VM-1 has an unbalanced 3.5mm mini stereo phone jack, the UM-1 has a balanced-XLR output (as well as an unbalanced mini). Both receivers include an output cable.

All Transmitters Feature

- Transmitters offer a 14 hour typical battery life and three multi-color LEDs indicate relative battery power (low, medium and high)
- External audio On/Off switch allows the audio signal to be muted without inducing a thud or popping sound when disabling the transmitter.
- Battery compartment conceals On/Off switch and an audio input trim pot, controlled with a supplied plastic screwdriver, that optimizes audio level performance when using different microphone elements.

VT3L and UT1L Beltpack Transmitters

- A number of lavalier and headset microphones, licensed or manufactured by Samson can be connected to the beltpack transmitters using a 3-pin Switchcraft mini-XLR jack
- Beltpack transmitters have a belt clip that can be rotated to any desired position or removed
- Permanently attached pig tail antenna on the bodypacks maximize RF transmission

Two discrete receiver circuits are housed in each VM-1 and UM-1 receiver while a processor decides which of the two receiver circuits is giving you the better signal.

Overnight Shipping Available

VM-1 Micro Series Systems (Includes VM-1 Receiver)

VM-1 Lavalier Systems with VT-3L Beltpack Transmitter, Mini Cable and two 9v Batteries

VML: Without microphone **199.95**

VML-350: With Audio Technica MT350 Lavalier Mic.....**199.95**

VML-831: With Audio Technica AT831 Lavalier Mic **249.95**

VM-1 Handheld Systems

VMH-HQ: Includes VH3 handheld transmitter with Samson QMic, mini cable and two 9-volt batteries **209.95**

VM-1 Headset Systems with VT-3L Beltpack Transmitter, Samson Headset Mic, Mini Cable and two 9v Batteries

VMH-SQE: With QE headset mic ..**229.95**

VMH-SQV: With QV headset mic..**229.95**

VM-1 System Components Only

VM-1 Receiver.....**169.95**

VT-3 Instrument transmitter **138.50**

VT-3L Beltpack transmitter **154.50**

VH-3Q Handheld transmitter with Samson QMic mic capsule **186.95**

Compatible Microphones for VT-3L and UT-1L Beltpack Transmitters

MT350P3 Audio Technica MT350 omni-directional lavalier mic **69.95**

AT831P3 Audio Technica AT831uni-directional lavalier mic **116.50**

ECM-44P3 Sony ECM-44 omni-directional lavalier mic **124.95**

ECM-55 Sony ECM-55 omni-directional lavalier mic **268.50**

ECM-77P3 Sony ECM-77 omni-directional lavalier mic.....**349.50**

MKE-2P3 Sennheiser MKE-2 omni-directional lavalier mic **363.95**

QEP3 Samson QE hyper-cardioid water resistant headset mic **94.95**

QVP3 Samson QV hyper-cardioid headset mic.....**94.95**

ATM75P3 Audio Technica ATM75 hyper-cardioid headset mic **124.95**

CM311EP3 Crown CM311E hyper-cardioid headset mic.....**276.50**

CIP3 Crown Isomax hyper-cardioid headset mic **284.50**

UM-1 Micro Series Systems and Components

UM-1 Lavalier and Headset Systems

They all include: UT-1L beltpack transmitter, UM-1 receiver, balanced mini XLR to standard XLR output cable and two 9v batteries

UM-LP3 Without microphone **359.95**

UM-L350 With Audio Technica MT350 .....**349.95**

UM-L831 With Audio Technica AT831 lavalier mic.....**399.95**

UM-L44 With Sony ECM-44 lavalier mic.....**449.95**

UM-L55 With Sony ECM-55 lavalier mic.....**559.95**

UM-L77 With Sony ECM-77 lavalier mic.....**619.95**

UM-LMKE With Sennheiser MKE-2 lavalier mic **629.95**

UM-HSQE With Samson QE headset microphone.....**399.95**

UM-HSQV With Samson QV headset microphone **399.95**

UM-HS75 With Audio Technica ATM75 headset mic **429.95**

UM-HS311 With Crown CM311E headset mic **529.95**

UM-HSI With Crown Isomax headset mic **561.95**

UM-1 Handheld Systems

They all include: UH-1 handheld transmitter with UM-1 receiver, balanced mini XLR to standard XLR output cable and two 9v batteries

UM-HHQ With Samson QMic mic capsule **359.95**

UM-HH757 With Electro Voice 757A mic capsule **439.95**

UM-HH857 With Electro Voice 857A mic capsule **459.95**

UM-1 System Components

UM-1 Receiver **299.95**

UT-1L Beltpack transmitter **194.95**

UH-1Q UH-1 handheld transmitter with QMic mic capsule ..**259.95**

UH-1757
UH-1 handheld transmitter with EV 757A mic capsule **333.50**

UH-1857
UH-1 handheld transmitter with EV 857A mic capsule **379.95**

WIRELESS MICROPHONES

UHF Synthesized Wireless Microphone System

Sony's UHF Synthesized Wireless Microphone System, consisting of handheld and bodypack transmitters and 4 different receivers, is widely recognized as the outstanding wireless mic system for professional applications. Operating in the 800 MHz UHF band range and equipped with a PLL (Phase Locked Loop), they provide up to 94 channels of interference-free operation. With their user-selectable channels, complete multiple channel operation is possible. Additional features, like space diversity reception, LCD indicators, reliable and sophisticated circuit technology assure low noise, wide dynamic range, and extremely stable signal transmission and reception. An affordable system with superb audio quality and easy handling, the Sony UHF Synthesized system is the ultimate in convenience for applications at broadcasting stations, film production facilities, and in ENG/EFP work.

FEATURES

800 MHz UHF Band Operation

■ Unlike the heavily used VHF band, the area around 800 MHz in the UHF band is underused. With this lower activity, the systems are not affected by external noise and interference caused by other wireless systems and provide for low noise transmission and reception.

PLL Synthesized System

■ A PLL (Phase Locked Loop) synthesized system controls the transmission and reception frequencies of the system. It assures stability and easy access to multiple channel frequencies. Equipped with a PLL synthesized control system, Sony's UHF Synthesized system provides up to 94 selectable frequencies.

Channel Setting Backup

■ Each unit has a convenient memory backup capability. When the Power switch is turned on, the previous channel setting is automatically recalled and displayed.

Pre-Programmed Channels

■ Wireless channels are conveniently preset in each tuner for use in a multi-channel operation at one location. The UHF Synthesized System employs 6 channel plans with up to 19 channels for simultaneous multi-operation use. The use of preset channels instead of random selection of channels prevents interference such as beat noise in multi-channel operation and guarantees better unit isolation.

Squelch Control

■ To ensure accurate audio reproduction, the UHF Synthesized System is equipped with tone squelch circuitry control. Here's how it works: the transmitters broadcasts audio signals together with a 32 KHz tone signal. Only after receiving the tone signals will the receivers reproduce the audio signals for output. This function eliminates external noise and other unwanted signals.

Easy-to-Read LCD Display

■ All of the transmitters and receivers have built-in LCD displays. They provide extensive information on group, battery status, AF level, etc. Employing a back light, these indicators can be seen even in low-light situations.

Wide Dynamic Range and Low Noise

■ The UHF Synthesized System employs a Compander (Compressor/Expander) system for optimum transmission over a wide dynamic range with low noise and interference.

Space Diversity Reception System

■ A space diversity reception system is equipped with two or more antennas used to eliminate noise and signal dropouts, thus ensuring stable reception. An additional benefit of this system is stable reception and cleaner audio at extended operating distances.

WRT-805A

UHF Wireless Belt Pack Transmitter

- 6 hours of continuous operation with a single AA battery
- LCD display of channel, attenuator and accumulated hours
- 3.5mm locking mini jack accepts the BMP line of Sony mics
- Low-battery alarm works with compatible receivers
- RF power output: 10mW

WRT-805A **316.95**

WRT-822A

UHF Wireless Body-Pack Transmitter

- The WRT-822A accepts all Sony professional BC series lavalier mics
- Measuring only 2-1/2″ x 4-1/8″ x 11/18″, the WRT-822A provides exceptionally comfortable handling
- Easy-to-read LCD displays extensive system information
- Eight hours continuous operation with 2 AA batteries

WRT-822A.....**689.95**

Sony Electret Condenser Lavalier Microphones and Cables for UHF Belt Pack Transmitters

ECM-121BMP omni-directional with an 8-inch cable **34.95**

ECM-122BMP omni-directional with a 48-inch cable **34.95**

ECM-166BC uni-directional.....**109.95**

ECM-166BMP uni-directional **99.95**

ECM-44BC omni-directional **129.95**

ECM-44BMP omni-directional.....**109.95**

ECM-55BC omni-directional **224.95**

ECM-66BC uni-directional lav **279.95**

ECM-77BC omni-directional lav.....**279.95**

ECM-77BMP omni-directional lav ..**249.95**

ECM-310BMP Headset mic **69.95**

Cables

EC15CF XLR adapter cable for BC Series transmitters.....**59.95**

GC0.7MP 1/4-inch guitar cable for WRT-805A transmitter.....**44.95**

K1161 1/4-inch guitar cable for BC Series transmitters.....**89.95**

	ECM-166BC	ECM-44BC	ECM-55BC	ECM-66BC	ECM-77BC	EC-15CF	K1161
WRT-822A Mic Kits	704.95	724.95	819.95	849.95	849.95	704.95	714.95
WRT-860A Mic Kits	1209.95	1234.95	1309.95	1359.95	1359.95	1219.95	1254.95

BC models come with a 1.2m cable and a SMC9-4P connector for use with the WRT-822A and WRT-860A beltpack transmitters.

BMP models have a 3-pole mini-plug with a lock mechanism for secure cable clamping to the WRT-805A beltpack transmitter.

WRT-860A *UHF Synthesized Belt Pack Transmitter*

- Transmits a 32kHz tone signal along with the audio signal. Circuitry in the receivers recognize this tone and unmutes its audio output. With this tone operated squelch feature, it is possible to eliminate interference from unwanted transmissions.
- Easy-to-read LCD displays system information on operating conditions such as accumulated working time, channel frequency in MHz and battery status.
- Like the WRT-822A, the WRT-860A accepts all BC Series Sony professional lavalier microphones.
- Measures only 2-1/2″ x 6-5/8″ x 11/16″.
- Six hours continuous operation on 2 AA batteries.
- Detachable antenna.
- 20mW RF output and a compander system are employed for optimum transmission over a wide dynamic range with minimum noise and interference–even over long operating distances.

WRT-860A **1189.00**

UHF Synthesized Wireless Handheld Microphones

There are five Sony UHF synthesized wireless handheld microphone transmitters and one plug-in transmitter to choose from- each with the same 94 channel frequency agility and PLL synthesized tuning as the rest of the Sony UHF wireless product line. Sony handheld transmitters are available with a variety of practical features to suit any application, whether for live sound reinforcement, recording or video applications such as wedding videography and electronic news gathering

WRT-808A

- RF power output: 10mW
- Plug-In transmitter works with any dynamic microphone with an XLR connector
- 94 channel frequency agile
- Runs on two AA batteries
- Battery level indicator
- Level control
- AF/Peak indicator shows condition of audio input level
- Low-Battery alarm works with compatible receivers

WRT-800A

- Wide-cardioid electret condenser capsule for outstanding sensitivity and response
- 12 hours of continuous operation with a single AA battery
- Selectable RF output of either 2.5 mW or 10 mW depending on transmission distance and operating environment.
- Ergonomic grip and Miniature helical antenna
- Low-Battery alarm works with compatible receivers
- Smoothly tapered body with compact lightweight design

WRT-807A

- High sound quality for vocals - powerful, crisp and clean sound as well as presence in the low end and mid frequency range
- Dynamic microphone capsule, same as used in the Sony F-780 professional vocal microphone
- LCD for display of channels, attenuator and accumulated hours
- Up to 5 hours of continuous use with a single AA battery
- Battery alarm transmitted to compatible receivers
- Newly-developed lockable power switch to prevent accidental operation

WRT-808A	**539.95**	**WRT-810A**	**709.95**
WRT-800A	**269.95**	**WRT-830A**	**859.95**
WRT-807A	**519.95**	**WRT-867A**	**1049.95**

WRT-810A

- Uni-directional dynamic mic capsule
- 8 hours of continuous operation with two AA batteries
- Unique and refined cosmetic design
- Rugged housing provides complete protection against rough handling
- Selectable RF output of either 2.5 mW or 10 mW depending on transmission distance and operating environment.
- Easy-to-read illuminated LCD display of operating channel, battery status, etc.
- Built-in talk switch

WRT-830A

Same as the WRT-810A except—

- Incorporating an electret condenser mic capsule and uni-directional design, the WRT-830A reproduces extremely high quality sound while isolating desired audio source from ambient noise.
- Ideal for vocals at film production and broadcasting stations.
- On/Off power switch is located inside the body. This prevents accidental turnoff during operation.
- RF carrier with tone signal

WRT-867A

- Uni-directional dynamic mic capsule incorporates a high quality edgewise-winding voice coil with lightweight CCAW (copper clad aluminum wire) and AlNiCo magnet for powerful, crisp and clear sound as well as presence in the middle and high frequency range.
- Four hours of continuous operation at 10 mW RF output level with one AA battery.
- Ideal for critical vocal applications in broadcast and film production.

Camera Mountable UHF Synthesized Receivers

WRR-805A

- Camera mountable
- 94 selectable frequency synthesized UHF channels
- LCD display with channel/group, battery and RF indicators
- Six hours of operation (with two AA alkaline batteries)
- 3.5mm diameter balanced line output connector
- Headphone monitor
- Output volume control

WRR-805A.....**549.95**

WRR-810A

- Up to 94 selectable frequencies in the 800 MHz UHF band
- Pre-programmed channel plans
- Easy-to-read LCD indication
- Switchable muting RF level
- Capable of supplying power from camcorders with a DC output
- Up to 6 hours of operation with two AA batteries
- Tone squelch circuitry control for accurate audio reproduction
- Compander system for wide dynamic range and low noise
- Monitoring function with rotary volume switch for monitoring sound output with supplied earphone or headphones.
- Compact and lightweight, it can easily mount to a camcorder with the supplied holder kit.

WRR810A **829.95**

WRR-860A

- High quality wireless receiver with dual diversity reception for outstanding quality not achieved with other receivers.
- Extensive easy-or read LCD panel displays accumulative working time, frequency and RF input level, AGF level and battery status.
- PLL synthesized control transmission
- Pre-programmed channel plans
- Switchable muting RF level
- Headphone monitoring of both diversity channels.
- Large easy-to-read LCD and LED display.
- Easy access to up to 94 selectable frequencies in the 800mHz UHF band range
- Rugged, compact, lightweight and easy to mount on Betacam SP camcorders
- Up to 6 hours of operation with AA-size batteries
- Capable of receiving power from camcorders with a DC output
- Monitor output with supplied earphone

WRR-860A.....**3799.95**

WRR-855A

- Water resistant structure
- Muting RF Level 10dBu or Off
- Space Diversity Tuner for Camcorder
- PLL Synthesized Frequency Tuning
- Squelch circuitry operated by ultrasonic tone for positive transmitter reception
- The WRR-855A portable tuner has a 15-pin connector for audio output to a Betacam SX camcorder
- Can be mounted on Sony Betacam SP camcorders with the optional BTA-801 mounting adapter. The camcorder can power the WRR-855A when you use the DC cable supplied with the BTA-801.
- Compact design and lightweight— only 11 oz

WRR855A.....**1799.95**

BTA-801 .....**349.95**

WRR-802A

Single Channel UHF Synthesized Diversity Receiver

Designed for single channel operation where only one transmitter will be used per receiver. Any one of 94 channels can be selected.

- Front mounted antennas
- Balanced output connector with a XLR balanced mic/line selectable and 1/4 inch TRS connector
- Output volume control
- AF, RF and battery alarm indication by both LED and LCD to double check operating condition (channel indication by LCD only)
- Half 19-inch rack width and 1U high

WRR-802A.....**549.95**

MB-806A *Multi-Channel UHF Synthesized Diversity Receiver*

- 19-inch rack mount tuner frame accommodates up to 6 WRU-806A tuner modules
- When used with a WD-820A Antenna Divider up to 3 systems providing 18 mics can operate simultaneously
- Six XLR-balanced output connectors plus an XLR balanced mix output
- Auto channel assignment for extra tuner modules, detects and skips unusable channels
- Built-in antenna divider with 9v DC power
- Mic/line output level switch
- Rear mounted antennas

WRU-806A
UHF Tuner Module

MB-806A **619.95**

WRU-806A.....**329.95**

WD-820A

UHF Antenna Divider

- Four diversity distribution output connectors for distributing the RF input signal from up to three MB-806A tuners
- Two pair of antenna input connectors for connection of up to four AN-820A antennas– allowing expansion of the operating area
- Cascade three WD-820A's to control up to 19 channels ....

WD-820A Antenna Divider 1013.95

ICF-SC1PC

WaveHawk Portable RF Scanner

The IFC-SC1PC is a portable, hand-held, radio-frequency scanner, with PC control access and CD-ROM software/frequency database

ICF-SC1PC
Portable RF Scanner
.....299.95

WD-880A

UHF Antenna Divider/Channel Multiplier

- Expands simultaneous operation from 19 channels to up to 42 channels
- Incorporates RF bandpass filtering technology for stability and reliability
- Supplies 9 or 12v power to the AN-820A **3308.95**

AN-820A *UHF Antenna*

The AN-820A incorporates an amplifier to compensate for signal deterioration caused by cable transmission and distribution.

- Unique and inconspicuous design allows installation on a wall or in a mic stand with the supplied adapter
- LED indication for installation check
- Powered by the MB-806A or the WD-820A via coax cable

AN-820A UHF Antenna..... **162.95**

CIRCUITRY PRODUCTS

Shure "M" Series mixers are compact, durable, reliable, and functional. It's no surprise then, that they've become standards for broadcast, sound reinforcement, paging, and audio/visual applications. The mixers in the Shure FP (Field Production) Series are industry standards for their problem-solving, feature-packed designs and extreme ruggedness. Built specifically for broadcast and field production, Shure "FP" products are synonymous with convenience and reliability to audio technicians worldwide.

FP-11 *Microphone-to-Line Amplifier*

The FP-11 is a portable, in-line amplifier designed to provide up to 84dB of gain, so that mics and auxiliary level devices can be run at line levels. It's ideal for use in broadcasting and video production where long lines must be driven at higher than microphone or auxiliary levels. The FP-11 can also be used to interface equipment requiring different signal levels.

- Balanced XLR input/output connectors.
- Selection of up 84dB gain in fourteen 6 dB increments.
- Wide range frequency response from 20Hz to 20kHz.
- Low susceptibility to RF interference.
- Switchable Peak/limiter LED indicator indicates onset of limiting (peak limiter on) or 6dB below clipping (limiter off).
- Low input noise and harmonic distortion.
- Rugged construction with durable belt clip for extended field use.
- Runs 25 hours on a single 9-volt battery.
- Additional aux-level mini phone jack input and balanced line-level binding post output.
- Compact and lightweight (1.2 lbs..)

FP-11 .....**248.50**

FP-16A *Audio Distribution Amplifier*

The FP-16A is a 1 x 6 compact audio distribution amplifier for routing multiple audio signal feeds without incurring signal loss, distortion, hum or noise. With it's intelligent design and meticulous construction, the FP-16A is ideal for broadcast situations, studios, ENG vans as well as duplication houses, press conferences and production facilities.

- Wide range frequency response (30Hz to 20kHz) and up to 90dB gain.
- XLR-balanced inputs and outputs are individually switchable for balanced mic or line level operation.
- Rugged and durable, but compact and lightweight (6 lbs..) for field use.
- Provides phantom power for condenser microphones.
- Recessed input gain control with normal and overload LED indicators.
- Can be daisy-chained for additional outputs or adding signal processors such as equalizers, compressors or limiters.
- Rack-mountable with optional A16R rack mount.
- Runs on 120 or 240v AC, or can run on three 9-volt batteries. Low battery drain allows over 15 hours of operation under normal conditions.

FP16A **424.95**

A16R.....**29.95**

FP-22 *Headphone Amplifier*

The FP-22 is a battery-powered stereo headphone amplifier that provides headphone feeds from any audio input source. It has the unique capability of monitoring mono, stereo and mixed mono and stereo inputs. The FP-22 monitors and combines these signals in the headphones without affecting the original signal. With 81dB of gain, it can monitor a wide range of signal sources in many different configurations. Ideal for field production, studio recording and trouble shooting applications.

- Loop through 1/4-inch stereo phone jacks (can be internally switched to become separate left and right inputs).
- Overall headphone balance control, overall stereo/mono switch for headphones.
- Balanced loop through XLR connectors are mic/line switchable. A 30dB pad attenuates loud line level sources.
- Independent control of headphone volume as well as loop-through volume.
- 1/4-inch and 3.5mm stereo jacks
- Powered by 9-volt battery or external 12 to 24 volt DC power supply.

FP-22 .....**284.95**

FP-33

Portable Stereo Mixer

The standard by which portable mixers are measured, the FP-33 is used all over the world for remote audio recording, ENG/EFP applications and location film production. Built upon the benchmark FP32 and FP32A field mixers, the FP33 is light enough, small enough and rugged enough to take anywhere. It features three XLR-balanced mic/line inputs and two outputs, center detented pan pot for each input channel, oscillator, two headphone jacks, 48v/12v phantom and 12v T (A-B) power, tape out jack, and a monitor input for the headphone circuit. Exceptional low noise design and wide dynamic range make the FP-33 ideal for use with digital transmission links or digital video/audio media, including DAT and recordable CD.

FEATURES

Inputs

- Three XLR-balanced inputs; switchable to low-impedance mic or line level.
- Phantom or A-B (T) power for condenser mics is available at each mic input.
- Built~in tone oscillator for level checks or line tests.
- Slate microphone with automatic gain control (AGC) for take identification or for emergency use. Slate tone for identifying take locations during editing.
- Stereo monitor input allows headphone monitoring of external sources without interruption of mixer functions.
- Link switch couples mixer inputs 2 and 3 into stereo pair

Outputs

- Left and right XLR-balanced outputs are mic/line switchable.
- Left and right tape outputs are available to feed tape recorder inputs or other unbalanced aux-level inputs.
- 1/4-inch and 3.5 mm headphone jacks are driven by a stereo headphone power amp with separate level control.

Controls and Indicators

- Center detented pop-up pan pots on each input. Color-coded, soft touch rubberized knobs with tactile position indicators
- Active, feedback~type input gain controls permit direct input of high-level sources without input attenuators.
- Dual clutched Master gain control for individually adjusting left and right levels at line/mic and tape outputs, as well as tone oscillator and slate mic levels.
- 150Hz (6dB/octave) Lo-cut filters at each input reduces extraneous low~frequency interference.
- Built-in limiter with adjustable threshold prevents output clipping of mixer or input overload of amp or tape deck.
- LED indication of input level, peak output level, limiter action, and battery.
- Illuminated VU meters for left/right channels. Preset for 0 VU = +4 dB, adjustable for other levels.
- Headphone monitoring mode switch and headphone MS matrix.

Performance

- Wide, flat response with extremely low distortion and up to +1dBm output level for studio-quality performance.
- Small and lightweight, the FP-33 offers sealed input potentiometers and a steel chassis, making it extremely rugged and durable as well.
- Mix bus jack for connecting additional FP33 or FP32A mixers
- Internal DIP switches provide over 4,000 different set-ups

Power

- Powered by two standard 9v batteries (up to 8-hours under normal conditions) that can also supply 48v or 12v phantom power to condenser microphones.
- Can also be externally powered from any 11 to 30v DC source such as battery belt pack or car battery.
- A third 9v battery can be used for condenser mics that require A-B power.

FP-33 with carrying case, shoulder strap and mix bus cable.....**1199.95**

Applications Include:

■ Remote audio recording ■ Electronic field production (EFP) ■ Electronic news gathering (ENG) ■ Film production

We Ship Worldwide

FP-410

Automatic Microphone Mixer

A portable automatic mixer, the FP-410 is equipped with Shure's patented "IntelliMix" to deliver flawless automatic microphone mixing. The remarkable operating concept behind the FP-410, "Intellimix" combines three unique functions: Noise-Adaptive Threshold, MaxBus and Last Mic Lock-On, to provide greater gain before feedback, reduce pickup of ambient noise and eliminate comb filtering effects. Ideal for video production, broadcast, conference recording and field production, the FP-410 is also useful for convention facilities, hotels and sound installations.

Noise-Adaptive Threshold:

Distinguishes between constant background noise (such as air-conditioning) and rapidly changing sound (such as speech). This function continuously adjusts the activation threshold so only speech levels that are louder than background noise will activate an FP-410 channel.

MaxBus:

Eliminates the poor audio quality that results when a speaker is picked up by more than one microphone. It does this by controlling the number of microphones that may be activated for a single sound source. With MaxBus, one talker will activate only one FP-410 channel, even if multiple microphones are "hearing" that talker.

Last Mic Lock-On:

Maintains a seamless audio mix by keeping the most recently activated microphone open until a newly activated mic takes its place. Without this function, a long pause in conversation might cause all mics to turn off and sound as if the audio signal has been lost. With Last Mic Lock-On, background ambience is always present.

"IntelliMix"—How it Works

Multiple miking situations—with a number of talkers participating—have always presented problems for the audio technician. If too few mics are used, the coverage of each talker may vary, with one talker (nearest the mic) being louder and clearer than the next. Talkers farthest from the mics will sound "echoey" and reverberant, as very little of the direct sound from their mouths reaches the microphones. If too many mics are used, there's more background noise and reverberation pickup, as well as less gain before feedback if a sound reinforcement (PA) system is used.

It's somewhat like having multiple video cameras all focused on the same subject. If the camera signals are combined, the result is a blurred image. When multiple microphones are open for a single talker, the result is a blurred audio signal. But it's often not practical for someone to turn mics on when they are needed and off when they are not. The answer is the FP-410.

The FP-410 automatically attenuates any microphone not being used, greatly reducing excess reverberation and feedback problems. When a new talker starts, the FP-410 immediately selects and silently activates the most appropriate microphone. "IntelliMix" electronic processing enables the FP-410 to provide clear, natural voice pickup. The FP-410 significantly reduces the problems of "boomy" or "muddy" sound, insufficient sound level (because of feedback or "howling"), and operator errors. In fact, errors are virtually eliminated because the FP-410 doesn't need an operator or technician for continual adjustment—once set up, it is completely self-sufficient.

The FP-410 has numerous applications in video production and audio recording, broadcasting, and sound reinforcement. In any speech pickup application with multiple microphones, the FP-410 dramatically improves audio quality. Switching from manual to automatic operation allows an individual's voice to rise above background noise and reverberation to become clearer and more intelligible.

- Four XLR-balanced inputs and two XLR-balanced outputs. Each can be individually set for microphone or line-level signals.
- Any high quality, low-impedance, balanced mic (dynamic or condenser) can be used, including wireless and shotguns
- Additional FP-410 mixers can be interconnected. Linked systems can contain over 25 mixers and 100 microphones.
- Front-panel channel gain and master controls operate as in conventional mixers.
- Selectable hold time keeps microphones on during short pauses in speech.
- Automatic gain adjusts as additional microphones are activated.
- Wide, flat frequency response and low distortion up to +18 dB output.
- LED indication of mic channel mix levels, output level and limiter action.
- Automatic muting prevents annoying thumps and loudspeaker damage when the FP-410 is turned on and off.
- Separate monitor input and tape output (aux-level) jacks.
- Front panel headphone monitor jacks with level control.
- 48-volt phantom powering for condenser microphones.
- Operates on AC or two 9-volt batteries.
- Includes optional bumpers (feet) for use on horizontal surfaces; a short cable for linking two FP-410's; and a rack mount kit for installation in a 19-inch rack.

FP-410 .....**1089.95**

FP-42

Portable Stereo Mixer

The FP-42 is a four-input, two-output, compact self-contained stereo mixer with all the features and ruggedness that have made Shure mixers the industry standard. Perfect for mixdown in video editing suites, the FP-42 integrates all the operating features and reliability of a professional studio mixer in a single unit that is small and light enough for location use.

- Four XLR-balanced inputs, each mic/line switchable with low-cut filters and cueing options.
- Left and right XLR-balanced outputs with mic/line and mono/stereo switches.
- Active feedback-type input gain controls for high level signals without input attenuators.
- Pull-pot cueing on all inputs provides channel previewing.
- Built-in tone oscillator permits level checking and line testing.
- Parallel stereo headphone jacks (1/4-inch and mini) with level control.
- Adjustable-threshold limiter with left and right channel peak indicators.
- VU meters with range switch and battery check function
- Left and right channel master level controls and ganged headphone level control.
- AC powered (120 or 240 volts internally selectable) or built-in battery pack (three 9-volt batteries).

FP-42 .....**818.50**

M367

Portable Six-Input Mic/Line Mixer

An industry standard, the M367 is a six-input mono mic/line mixer/remote preamplifier specifically designed for professional applications. A complete and compact console, the M367's excellent performance, versatility and features make it ideal for studio, remote , video deposition and sound reinforcement applications as well as an add-on mixer for expanding existing facilities. Built to meet the requirements of the most demanding field production applications.

- Six switchable XLR-balanced mic or line level inputs with individual gain controls and low-frequency roll-off switches.
- Two XLR-balanced outputs; one selectable mic/line output and one dedicated line output.
- Metal XLR connectors on both inputs and outputs, detachable AC cable
- Feedback-type input gain controls for maximum clipping levels and dynamic range.
- Built-in switchable peak limiter cuts output overload distortion and adapts to power supply voltage.
- LED indicator shows limiter operation or overload with limiter defeated.
- Externally adjustable limiter threshold (-4 to +18dB).
- Wide, flat frequency response (20Hz to 20 kHz) and extremely low distortion up to +16dBm line level output.
- VU meter is calibrated for +4 and +8dB with range switch. Meter is also illuminated during AC operation.
- Phantom power for condenser microphone operation
- Front-panel headphone level control and monitor jack; can drive almost any stereo or mono headphones.
- Headphone output level is high enough to be used as an auxiliary unbalanced line feed to drive a tape recorder or power amplifier.
- Automatic muting prevents speaker damage during power on/off.
- Highly stable, low-distortion tone oscillator provides for line test and level checks.
- Rear panel Mix Bus jack facilitates stacking multiple M367's for additional input capability without losing any inputs. Two M367's connected, provides two independent master gain controls and two isolated line amplifiers with eight individually controlled inputs.
- Selectable 120 or 240 v AC operation as well as portable DC capability (three 9v batteries required).

M367.....**524.50**

SCM-262

Stereo Mixer

The SCM-262 mixer features two XLR balanced mic inputs and 3 stereo phono line inputs. Compact 1/2 rack size makes it ideal for light sound reinforcement applications that require a combination of line level sources such as CD, cassette and VCRs. Perfect for A/V and multimedia presentations, small video editing suites, aerobics classes and restaurants. Ducking feature (defeatable) attenuates stereo line level sources when mic inputs are active.

- Bass and treble controls for main outputs
- 12-volt phantom power
- Internal power supply eliminates bulky external transformers
- Rack-mounting hardware included

SCM-262 .....**219.95**

SCM-268 *Stereo Mixer*

The SCM-268 is a feature packed yet economical 1/2 rack mic/line mixer. 4 transformer balanced XLR mic inputs and 5 line level phono plugs give you a total of 9 inputs. An 80Hz low cut filter eliminates extraneous low-end rumble from the mic inputs while the six transformer balanced mic inputs, switchable mic/line output and internal toroidal power transformer (no external wall wart) ensures noise free operation protected from RF interference. Use in meeting rooms, video depositions, paging systems, broadcast and houses of worship.

- Auxiliary phono plug output
- 12-volt phantom power
- LED peak output meter
- Internal toroidal power transformer
- Rack mount hardware included

SCM-268 .....**239.95**

FEATURES	M367	FP-33	FP-42	FP-410	SCM-262	SCM-268
Transformer-Balanced Inputs and Outputs	Yes	Yes	Yes	Yes	—	Yes
Active-Balanced Input and Outputs	—	—	—	—	Yes	—
Low-Z Mic-Level Input	Yes	Yes	Yes	Yes	Yes	Yes
Line Level Input	Yes	Yes	Yes	Yes	Yes	—
Aux Level Input	—	—	—	—	Yes	Yes
Mic Level Output, Line Level Output	Yes	Yes	Yes	Yes	Yes	Yes
Phono Jack Aux Level Output	—	—	—	—	Yes	Yes
Headphone Output	Yes	Yes	Yes	Yes	—	—
Phantom Power	48v	48v	Yes	48v	Yes	Yes
VU Meter	Yes	Yes	Yes	Yes	—	—
Peak Meter	—	—	—	Yes	—	Yes
EQ	Yes	Yes	Yes	Yes	Yes	—
Tone Oscillator	Yes	Yes	Yes	Yes	—	—
Linkable	Yes	Yes	Yes	Yes	—	—
Slate Mic & Tone	—	Yes	—	—	—	—
Limiter	Yes	Yes	Yes	Yes	—	—
Stereo Operation	—	Yes	Yes	—	Yes	—
Power Options	AC/DC	DC Only	AC/DC	AC/DC	AC Only	AC Only
TYPICAL APPLICATIONS						
Automatic Microphone Activation	—	—	—	Yes	—	—
Church Sound	Yes	—	—	—	—	Yes
Broadcast	Yes	Yes	Yes	Yes	Yes	Yes
Field ENG/EFP	Yes	Yes	Yes	Yes	—	—
Basic Microphone Mixing, Basic PA	Yes	—	—	—	—	Yes
Distance Learning	Yes	—	—	Yes	—	—
Video Editing Suite	Yes	—	Yes	—	Yes	Yes
Conference Rooms, Round Table Discussion	Yes	—	—	Yes	—	Yes

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MX-802A/1604A/2004A/2642A/1804X

Eurorack Mixers

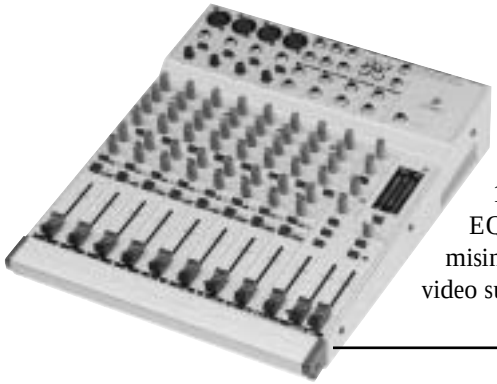
Behringer Eurorack mixers are built to the same standards and include many of the same features as their top of the line 8 bus console, the Eurodesk MX9000. Rugged and reliable, they offer the flexibility and sonic integrity demanded by the most discerning end users. Low noise circuitry and transparent audio make the Euroracks ready for broadcast production. They are perfect for MIDI rigs, home and project studios and video editing suites as well as live sound reinforcement. With five models to choose from, it would be hard to find a Eurorack that didn't meet your requirements. Balanced mic/line inputs, solid steel chassis, sealed potentiometers and external power supplies are some of the ingredients used to make the Behringer Euroracks so successful. Behringer has responded to the suggestions of their customers and developed a range of mixers that offer more bang for the buck with uncompromising audio quality.

All Eurorack Mixers Feature:

- Exclusive Ultra Low Noise (ULN) 4580 op amps virtually eliminate noise and crosstalk
- Vintage style "Big Console" mic pre amps bring out transparent musical qualities of your favorite microphones
- Multi-segment LED metering gives accurate level readings
- High quality Panasonic controls, sealed potentiometers and faders keep out dust and moisture to ensure long lasting, reliable performance
- 48v phantom power is available on all XLR mic inputs for use with condenser microphones and active DI's
- External power supplies means lower noise and better transient response
- Steel chassis and horizontally mounted fiberglass circuit boards are used for their ruggedness, whether on the road or bouncing from studio to studio
- Rack mount hardware is included where applicable

MX-802A *8 x 2 Sub-Compact Rack Mixer*

As the smallest Eurorack mixer, the professional MX-802A is ideal for project studios, small club venues and much more. The MX-802A shines as a MIDI mixer, submixer, monitor mixer and as a handy tool for level and impedance matching and mic preamp. Any broadcast studio or AV/film application can benefit from its transparent "big console" audio performance and features.



MX-1604A *12 x 2 x 2 Desktop Rack Mixer*

The MX-1604A mixer is one of Behringer's smallest mixers yet it maintains the same high standards and quality components as the rest of the Eurorack mixer line. A total of 12 input channels with 60mm logarithmic faders, even on the ALT 3-4 bus outs, 3-band EQ and balanced I/O throughout are examples of Behringer's commitment to uncompromising design and usability. Suitable for live sound, desktop music workstations, non-linear video suites, fixed installations and any other situation requiring a small but versatile mixer.

MX-2004A *16 x 2 Desktop Rack Mixer*

The MX-2004 is a 20-input rackmount mixer with several "must have" features without the price tag, and all the sonics, versatility and ruggedness that Behringer is known for. Features include 3-band EQ with sweepable mid frequency on the 8 mono inputs, 4 band fixed EQ on the stereo inputs and 60mm logarithmic faders —unheard of at this price point. Small foot print makes the MX-2004 ideal for any video post, project studio, small club or installation.

MX-2642A

16 x 4 x 2 Rack Mixer

The MX-2642 rackmount mixer is just as rugged and versatile, including the same quality mic preamps and stereo channels as the Eurorack mixer line. 4 dedicated sub-group outputs make this mixer ideal for smaller multitrack recording rigs or live installations requiring multi monitor feeds. The first 8 mic/line inputs have 3 band EQ with sweepable mids and 4 band EQ on the stereo channels allow greater control over your mix. Six aux sends on every channel offer maximum flexibility for external effects routing and/or headphone and additional monitor mixes.

MX-1804X

14 x 2 x 2 Rack Mixer With 24-bit Digital Effects

Part of a new generation of high-performance compact analog mixers, the MX1804X offers six mono and four stereo channels and provides functions that are quite commonly found in digital consoles– namely a built-in 24-bit stereo multi-effects processor. The multi-effects processor offers 20-bit A/D and D/A converters, and 32 presets of reverb, delay and modulation effects algorithms based on Behringer's Virtualizer rackmount effects unit. Whether for stage or studio, the 7-band graphic EQ assigned to the main outputs of the MX1804X allows you to adapt the mixer to various room acoustics and during mixdown gives your overall sound the finishing touch and sparkle it deserves.

Specification	MX-1804X	MX-2642A	MX-2004A	MX-1604A	MX-802A
Total # Of Inputs	14	16	16	12	8
Mic/Line Inputs	6 with inserts/direct outs	8 with inserts/direct outs	8 with inserts/direct outs	4	4
Stereo Line Inputs	4	4	4	4	2
AUX Sends	2 per channel, 1,2 switchable pre/post	6 per channel, 1,2 switchable pre/post	4 per channel, Aux 1 switchable pre/post	2 per channel, 1 switchable pre/post	2 per channel
EQ Mono Inputs	3-band w/-18dB low cut filter @ 75Hz	3-band with sweepable mids	3-band with sweepable mids	3-band	3-band
EQ Stereo Inputs	4-band	4-band	4-band	3-band	3-band
Solo/Mute	Yes	Yes	Yes	Yes	—
Master Outs	1/4″ balanced	1/4″ balanced w/insert	1/4″ balanced	1/4″ balanced	1/4″ balanced
Monitor Outs	1/4″ balanced	1/4″ balanced	1/4″ balanced	1/4″ balanced	1/4″ balanced
Bus Outs	—	4 (balanced 1/4″)	—	—	—
Mute 3/4 Bus Outs	1/4″ balanced	—	1/4″ balanced	1/4″ balanced	—
Tape Outs (RCA)	Yes	—	Yes	Yes	—
Headphone Outs	1/4″ TRS with level control	1/4″ TRS with level control	1/4″ TRS with level control	1/4″ TRS with level control	1/4″ TRS with level control
AUX Returns	2-Stereo	4-Stereo	2-Stereo	2-Stereo	2-Stereo
Tape Inputs	RCA	1/4″	RCA	RCA	RCA

VLZ PRO SERIES

Audio Mixers

Mackie audio mixers are considered by many to be the state-of-the-art in small to medium mixing board technology. Mackie revolutionized the compact mixer market by applying features and audio quality previously reserved for high-end, large format mixers. From the smallest to the largest of their models, Mackie puts their best effort into every phase of board design.
Now in their third generation of development, has raised the bar once again with the redesign of their already high headroom, low noise mic preamps. The result of two years of R&D, the XDR (Extended Dynamic Range) mic preamps offer over 130dB of headroom, exceeding the performance of outboard preamps costing $1000 to $2000 per channel. Project studios, video suites, multimedia authors, live venues, broadcast facilities and houses of worship seeking uncompromising sonic quality and maximum flexibility will find what they are looking for in Mackie's VLZ PRO mixer line.

Mackie Technology

Very Low Impedance

- Very low impedance is achieved by scaling down resistor values by a factor of three or four, resulting in a corresponding reduction in thermal noise. This circuit design is used throughout the Mackie mixer line wherever possible. By its very nature, low impedance leads to more immunity from crosstalk. The use of scaled down resistors also results in their being equipped with robust high current power supplies.

XDR Mic Preamps

- With over 130dB of dynamic range and extremely flat frequency response, the XDR mic preamps can handle inputs from 24-bit, 196kHz digital audio workstations without added coloration.
- Advanced DC pulse transformer reject RFI without attenuating frequencies of 15kHz and above.
- Ultra-high-speed, large-geometry input diodes on the front end of the input circuit completely protect the XDR mic preamps from the consequences of hot-patching and direct short circuits in cables carrying phantom power.

EQ

- Mackie's shelving EQ design meets the needs of modern recording, revealing higher highs and lower lows than ever before.
- Positioned at 12kHz, the ***Hi Shelving EQ*** is far more musical than the 10kHz found on most other mixers. A gentle boost at 12kHz adds sheen and presence to instruments and vocals, enhancing the textures of sounds without contributing to aural fatigue.
- Positioned at 80Hz, ***the Low Shelving EQ*** emphasizes the fundamental lows of kick drums, and other bass instruments while allowing you to fatten up male vocals and instruments like guitars.
- The mid range frequency selection of the 1202/1402-VLZ PRO are placed at 2.5kHz instead of the conventional 1kHz, harmonics of vocals and instruments are enhanced without becoming strident or fatiguing.
- ***The Sweepable Mid-Band EQ*** of the 1604-VLZ PRO adds or subtracts a wide, natural frequency curve that sweeps from 100Hz to 8kHz allowing specific EQ treatment of a broad range of frequencies.

Mix Amp Headroom

- Mackie's negative gain mix amplifier architecture sets standard mixing levels at -6dB. This offers a greater amount of headroom, allowing up to 4 times as many hot signals to be summed at the main mix bus without clipping

Impact Resistance

- Knobs ride just thousandths of an inch from the metal surface of a mixer chassis
- Downward force is transferred from knob to steel instead of from knob to potentiometer
- Ultimately, extremely brutal knob impact is absorbed by broad pressure on a tough circuit board
- A newly-developed, ultra-tight lip seal design provides a continuously-sealed barrier against dust and liquid
- Co-molded potentiometers don't use brittle material at critical mechanical points
- A braced, horizontal circuit board and shock-absorbing structure eliminates force transferred to the circuit board.

1202-VLZ PRO/1402-VLZ PRO

12 x 2 and 14 x 2 Compact Mixers

The successors to the Mackie MS-1202 and MS-1402, two of the most popular compact audio mixers in use today, the 1202-VLZ PRO and 1402-VLZ PRO will undoubtedly find their way into project studios and video suites that demand the absolute best sonic performance and flexibility. With 12 or 14 balanced input channels divided between 4 (1202) or 6 (1402) mono mic/line inputs and 4 stereo line input channels, these mixers can do double duty for videographers in the field and in the studio. Video suites doing dialog recording, voiceover or sound effects and project studios will find the range of bussing flexibility a blessing. For live gigging, the rugged steel chassis will stand up to the abuse of the road and the 2 aux sends are perfect for monitor and or effects sends.

FEATURES

Input Channels

- 4 mono balanced XLR mic/ 1/4-inch line inputs with inserts, trim and rotary level controls.
- 4 balanced 1/4″ stereo line inputs with rotary level controls.
- 2 Aux sends per channel can be used as effects sends or for creating monitor mixes and offer 15dB of extra gain above Unity
- Each mono and stereo input has 3 bands of EQ at 80Hz, 2.5kHz and 12kHz with a boost and cut of ±15dB.
- The mono and stereo inputs have a -18dB/oct. 75Hz Lo Cut filter that eliminates stage rumble, wind noise, P-pops and low frequency recording studio room resonances
- The Mute/Alt 3-4 buttons located on each input channel serve two functions: muting the input channel from the main mix, and signal routing, where they act as your gateway to an extra stereo bus
- Constant-loudness pan pots on each input channel keep sound at a consistent volume when panning between left, center & right positions
- PFL Stereo in-place Solo on each channel

Aux Inputs

- 2 balanced 1/4″ stereo returns with EFX to Monitor switch
- Aux 1 master control with Monitor/Post assign switch
- Stereo RCA 2 track tape return

Outputs

- Main stereo outputs are XLR-balanced switchable from +4dBu to mic level
- 1/4″ balanced alternate outputs (alt 3/4) are assignable from mute buttons on input channels
- 2 balanced 1/4″ auxiliary sends
- 1/4″ TRS balanced stereo control room outputs
- Stereo RCA (2 track) tape outputs
- Multi-input source matrix with level control allows you to route any combination of Main Mix, Tape In and Alt 3-4 to the Control Room/Phones bus, these routings can be used for submixes, monitoring or tracking and can be subsequently routed to the main mix

Additional Features

- Gain knobs have Unity gain detents, when input levels are properly set, the highest headroom and lowest noise floor is at unity gain
- 12 segment LED's give accurate level status of main outputs or soloed channels
- 48-volt phantom power for premium condenser mics
- Built-in power supply–no wall wart!
- Rude Solo Light LED bluntly advises that a channel is soloed
- Tape input level control and Tape To Main Mix switch
- All Mackie mixers carry a 3-year parts and labor warranty.
- Optional rackmount ears

1402-VLZ PRO Step-up

- 6 mono balanced XLR mic/ 1/4-inch line inputs instead of 4.
- Switchable AFL/PFL Solo
- 60mm long-wearing log-taper faders ensure consistent, smooth accurate response through the length of the fader travel.

1642-VLZ PRO

All The Features of the 1402 VLZ Pro Plus—

Input Channels

- 16 input channels total— channels 1-8 are mono and channels 9 - 16 are stereo.
- Each channel features input trim, 4 aux sends (aux 1 & 2 assignable pre/post), -20dB pad, 75Hz HPF, Solo (PFL and Solo-In-Place), mute, pan, bus 1/2, 3/4 and L/R assignment buttons and overload LEDs
- Channels 1 - 8 feature balanced XLR mic/ 1/4″ line with inserts, direct outputs and 3 band EQ with ±15dB boost/cut at 12kHz high shelving, 80Hz low shelving and mid-band EQ sweepable between 100Hz - 8kHz
- 2 stereo balanced XLR mic/ 1/4″ line inputs
- 2 balanced stereo 1/4″ line inputs
- 4-band active EQ on stereo channels

Aux Inputs

- Four 1/4-inch balanced stereo aux returns with level controls and solo.

Outputs

- Four 1/4″ balanced subgroup outputs have 60mm faders, switchable L/R assignment to the main mix bus.
- Two 1/4-inch stereo headphone outputs
- Four 1/4-inch balanced aux sends. Aux send 1-2 master section with level controls and solo
- 1/4″ balanced mono output with level control

Additional Features

- Switchable AFL/PFL Solo w/level control
- Optional rack ears are allow the 1642-VLZ PRO to be mounted in a standard 19″ rack.

1604-VLZ PRO

16 x 4 x 2 Compact Mixer

The highest headroom and lowest noise of any mixer in its class, the 1604 's flexible 4-bus architecture is ready for just about any project recording studio or live venue. Post production and broadcast facilities will also appreciate the myriad routing possibilities. VLZ design ensures quiet mixes with all 16 channels open during mix down, while the XDR mic preamps reveal all of the subtleties and nuances of your favorite condenser mic. Mackie's rotopod design and supplied rackmount hardware allows you to configure the mixer 5 ways by allowing you to rotate the input and output jacks to the top, back or front of the mixer with or without rackmounting. With unprecedented sonic performance, bandwidth, dynamic range and versatility, the 1604-VLZ meets the demands of the most sophisticated digital audio workstations — while remaining totally affordable.

All The Features of the 1642 VLZ Pro Plus—

Input channels

- 16 mono balanced XLR mic/ 1/4″ line inputs with inserts, input trim, 6 aux sends/4 per channel (aux 1 & 2 assignable pre/post), -20dB pad, Solo (PFL and Solo-In-Place), mute, pan, bus 1/2, 3/4 and L/R assignment buttons and overload LEDs
- Each input channel features 3-band active EQ with sweepable midrange (12kHz high shelving, mid eq sweep between 100Hz - 8kHz, 80Hz low shelving eq ±15dB) and 75Hz HPF
- Input channels 1-8 feature 1/4″ balanced direct outputs

Outputs

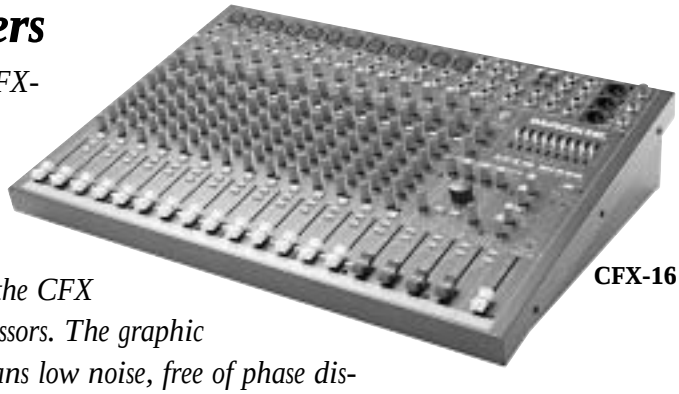
- 1/4″ balanced main outputs with inserts
- 6 balanced 1/4″ auxiliary send
- Single 1/4″ headphone output with level control

Additional Features

- 5 physical configurations via rotating I/O pod
- Rack mount kit included

CFX-SERIES

12, 16 and 20-Channel Audio Mixers



CFX-16

Available in 12 (CFX-12), 16 (CFX-16) and 20-channel (CFX-20) configurations, the CFX mixers incorporate digital effects and a 9-band graphic EQ to offer all-in-one compact mixing solutions. Based on developments made for the Mackie Digital 8-Bus Mixer the 32-bit EMAC (Extended Multiplication and ACcumulation) effects processor found in the CFX Series sounds clean and realistic rivaling many outboard processors. The graphic EQ on the output section is of "audiophile-quality" which means low noise, free of phase distortion. The mixers also feature the same low noise and high headroom as the rest of the Mackie mixer line as well as balanced I/Os and multiple busing options. For live performance, a unique break switch can mute the entire mixer (except for the two-track return input) as well as the effects and graphic EQ sections.

FEATURES

Input Channels

- Level-setting LED for each channel.
- Low-noise, high-headroom mic preamps with superior RF rejection with 50dB of mic gain.
- +30dB of line level gain and a full 15dB of attenuation to "pad" hot signals.
- Two Aux Sends with balanced 1/4″ outs, switchable to pre-fader for monitor use and post-fader for use as effects sends
- One external and one internal EFX Send.
- Pan, Mute, PFL solo on each channel
- Pre-Fader Solo switch allows channel monitoring via headphones for fast, accurate level setting to achieve maximum headroom with minimum noise
- 3-band EQ on mono mic/line channels- 12kHz shelving High frequency, EQ. Ultra-wide 100Hz to 8kHz bandwidth sweepable peaking Midrange EQ and 80Hz shelving Low frequency EQ.
- Inserts and 100Hz 18 db/octave low-cut filters on all mic/line channels
- 4-band EQ on stereo line channels

Subgroup

- Four Subgroup buses with 1/4″ balanced direct outputs and L/R assign "collect" channel signals assigned to them so you can submix vocals, drums and other audio signals for monitoring or tracking.

Effects

- 32-bit internal EMAC digital effects with 9 reverbs, 4 delays, phaser, chorus, flange; 2 parameter controls and an EFX wide spatial expander and bypass switch

Master Section

- Studio-quality, 9-band stereo graphic program equalizer with exceptionally low noise, low distortion and without phase-shift problems.
- Tape/CD inputs with level control assignable to Main Mix via Break switch
- RCA-type unbalanced tape/CD inputs and tape outputs.
- Two stereo effects returns with balanced 1/4″ inputs
- 12-segment tri-colored LED meters for visually monitoring main output and channel solo levels.

Outputs

- Balanced/unbalanced 1/4″ TRS and balanced XLR outputs for mains with inserts.
- Headphone jack w/level control.
- XLR balanced subwoofer output from built-in 18dB/oct. 75Hz crossover!
- Extra 1/4″ balanced utility stereo outputs with level control (post-Main Fader).

Conveniences

- Break Switch mutes all channels and routes Tape input to the mains while you're on break so you don't have to worry about feedback during breaks
- Long-wearing 60mm logarithmic taper faders give you smooth, linear control throughout the fader's entire travel.
- Rude Solo Light alerts of any current soloed channels
- Solid steel chassis
- 48v phantom power
- 12v BNC lamp socket.
- Built-in power supply uses standard IEC power cord.

MIXPAD 4

4-Channel Audio Mixer

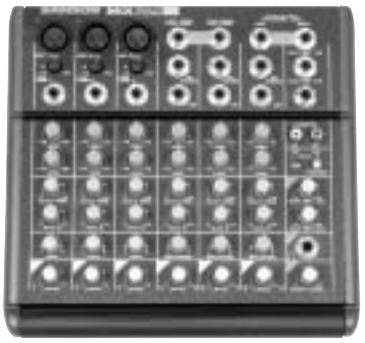
An incredibly compact 4-channel mixer with exceptional sound and a wide range of professional features. AC/DC (runs on three 9-volt batteries) capability makes it ideal for use in the field as well as in the studio. Can also be used as a simple microphone to line converter.

- Two XLR-balanced mic/1/4″ line inputs and one stereo input (4 channels total)
- Adjustable mic input trims allow use with a variety of microphones
- Independently switchable phantom powered mic inputs (extends battery life)
- One Aux send (pre-fader)
- One stereo effects return
- Independent 3-band EQ on each channel with ±15dB of boost or cut
- Peak LEDs on left and right main outputs for monitoring
- DC operation (runs 12 hours on three 9v batteries) and carry strap for maximum portability. Also includes an AC adapter.
- High headroom design +27dB output
- Constant-level pan controls (mono channels) and balance controls (stereo channel)
- Balanced stereo output with 1/4″ jacks for connection to amps and other gear.

Mixpad 4.....**155.95**

Mixpad 9/Mixpad 12 *9 and 12-Channel Audio Mixers*

Remarkably compact 9- and 12-channel mixers, the Mixpad 9 and 12 offer professional audio performance and a wide range of user-intensive features for virtually any type of application. They boast superior low noise and low distortion specifications, include wide-range gain trim controls for both mic and line inputs and provide very transparent, open sound. They have a very high slew rate—usually found on larger, more expensive mixers—allowing them to react very quickly to transients and to maintain crisp, articulate sound. They offer phantom power on all mic inputs for use with condenser mics and an in-line power supply eliminates magnetically-induced hum.



Inputs/Auxes/EQ

- Mixpad 9 is equipped with 3 mono XLR-balanced mic/1/4-inch line inputs, the Mixpad 12 offers six inputs.
- 3-stereo inputs
- Low noise and low distortion specs
- 2-auxiliary sends per channel
- 2-stereo effects returns.
- Independent 2-band EQ per channel
- Adjustable mic input trims allow them to be used with a wide variety of mics
- Constant-level pan (mono channels) and balance controls (stereo channels)
- Peak LEDs on left and right main outputs for monitoring

Mixpad 9.....**176.95**

Mixpad 12.....**229.95**

Outputs

- Balanced stereo output for connection to power amp and other equipment.
- High headroom design +27 dBu output
- High slew rate reacts very quickly to transients for crisp, articulate sound

Additional Features

- Low profile in-line power supply eliminates magnetically-induced hum
- Can be powered by optional 12v batteries for field use.
- Phantom power on mic inputs

S11 Cardioid Dynamic Microphones

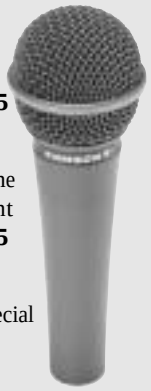
A durable multi-purpose mic suitable for recording, live sound and PA use, the S11 produces a smooth, transparent sound even at higher volume levels. Quiet and reliable, delivers consistent performance every time you use it **49.95**

S12 Hypercardioid Dynamic Microphones

Balanced natural sound, articulate midrange and smooth high end response, make the S12 suitable for live sound and recording. Thick zinc chassis and special shock mount design guarantees quiet performance. Includes mic clip and case **69.95**

QMIC Hypercardioid Neodymium Vocal Microphone

Designed for today's live sound reinforcement and PA situations, the QMIC has a special midrange "peak" at 2kHz to reproduce vocals with absolute clarity and definition. Delivers high output without feedback, QMIC is quiet and has a unique multi-stage windscreen and noise filter to eliminate "pops". A real standout on stage or in the studio **89.95**



FOLIO NOTEPAD

Portable Mixer for Live Recording/Multimedia

Less than ten inches wide, the Folio Notepad can handle up to 10-inputs, configured to give you the maximum choice of source signals, from condenser mics to turntables. An external power supply guarantees hum-free mixes with high RF rejection. Borrowing heavily from the technology found on the largest Soundcraft consoles; the Notepad's custom controls give you smooth, even response, while high quality pre-amps let you connect mic or line signals without noise or overload. Well suited for video editing, multimedia and desktop recording, houses of worship, small live venues, DJ's and more.

Inputs

- 4 mono XLR-balanced mic/1/4-inch line inputs with trim, 2-band shelving EQ, 1 aux send, pan and level controls
- 2 stereo RCA inputs switchable between line and RIAA (turntable) inputs with trim, 1 aux send, pan and level controls.
- 1 stereo 1/4″ balanced effects return
- 1 stereo RCA tape/CD input

Outputs

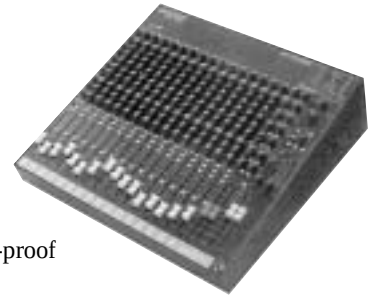
- Stereo 1/4″ balanced +4dBu main outputs
- Stereo 2 track RCA monitor output
- 1 mono 1/4″ auxiliary send
- Stereo headphone output
- Stereo 2 track RCA tape output
- Global +48v phantom power

- Peak and VU metering
- Custom designed rotary controls with consistent, accurate response
- Studio quality mic preamps with 50dB of gain range on every mic input

Folio Notepad.....**179.95**

FX16

16-Channel 4-Bus Multi-Purpose Mixer



A small format 16 channel mixer built from the ground up with both Live and Studio tasks in mind, the FX16 also features a programmable dual effects processor designed exclusively for Spirit by Lexicon. Housed inside the FX16's rugged yet compact 10U frame you'll find the highest quality components including all balanced inputs and outputs (except for the 2-track return), 100mm long throw Alps faders and precise custom designed rotary controls that offer consistent, accurate response. Built to the same road-proof specifications as the largest Soundcraft FOH consoles.

Input Channels

- 16 mono XLR-balanced mic/1/4-inch line inputs with 4 aux sends (1-3 sent to balanced 1/4-inch outs and the fourth dedicated to the Lexicon effects processor, 3-band "British" EQ with sweepable mid frequency and 18dB per octave High Pass Filter, solo and mute buttons per channel.
- Dual function LED lights 4dB before clipping occurs or when the channel's solo is activated.
- Switchable PFL (Pre Fader Level) Solo and Solo in Place that allows monitoring a channel signal in its true stereo position.
- +48v phantom power for condenser mics

Outputs

- 16 direct outs on mono channels are each configurable pre/post fader.
- Dedicated mono sum output
- Two XLR balanced main outputs.
- Stereo monitor output with level control can be assigned to the mix signal, subgroup signal or both or to the 2-track return signal.
- Balanced 1/4″ jacks subgroup outputs.
- 1/4″ headphone jack with level control.
- When using the console in a rack, the relocatable jackfield lets you connect your cables under the mixer.

Effects

- Built-in Lexicon Dual Effects Processor with editable programs and parameters. Includes reverbs, delays and choruses as well as dual effects programs such as delay and reverb as well as chorus and delay.
- Assignable 10-segment tri-colored meters indicate monitor, mix or subgroup.

Returns

- 2-track return with level control uses RCA connectors and can be routed to mix, providing an extra stereo input.
- 4 stereo returns with level controls and 1/4-inch balanced inputs can be assigned to the mix or subgroup outputs and have access to aux 1 and 2.

Inserts

- Inserts on mono inputs, subgroups and mix outs allow you to patch processors such as compressors or EQs anywhere in the chain.

FX16.....**899.95**

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LX-20

ADAT Type-II 20-bit Digital Multitrack Recorder

Built with the same 20-bit encoding and expansion capabilities as the rest of the ADAT Type-II line, the LX-20 provides an exceptional value in professional multitrack tape recorders. Also featured on the LX-20 is the 9-pin ADAT Sync interface which allows multiple ADATs to be synced together and the ADAT fiber optic, multi-channel digital interface that has become a standard digital interface found across the ADAT line as well as on a wide range of digital mixers and soundcards. The LX-20 makes the concept of an affordable, all digital tape based recording studio a reality.

ADAT Technology

- ➤ Uses standard S-VHS tapes to provide more than enough bandwidth to record 8 tracks of 20-bit digital audio. S-VHS tapes are inexpensive and made to a higher standard than VHS tapes.
- ➤ ADATs are ideal mixdown decks for surround and theatrical sound applications that require more than two-channels.
- ➤ ADAT tapes are formatted with a proprietary time code with single sample accuracy (up to 1/48,000th of a second) that is much more precise than SMPTE Time Code (1/30th of a second).
- ➤ Because time code is written into the subcode area of the tape you can synchronize ADATs without giving up a track. Up to 16 ADATs can be synchronized together for a total of 128 tracks—with single sample (20 microsecond) accuracy.
- ➤ 20-bit A-D (analog to digital) and D-A (digital to analog) converters achieve a dynamic range up to 120dB — compared to 98dB range using 16-bit converters. The additional 4 bits of audio data increases the number of amplitude values available for samples from 65,536 (16-bit) to over a million (1,048,576).

Recording Functions

- ■ Eight record enable buttons control the input monitor status.
- ■ Input monitoring is controlled with the Auto Input button which automatically monitors record-enabled tracks. The All Input button monitors all inputs regardless of the record-enable status.
- ■ The Digital input button can be used with the input monitor buttons to reroute any incoming channel of digital audio to any of the 8 ADAT tracks.
- ■ Pitch control buttons can raise and lower the pitch of a tape to varying degrees depending on the current sample rate. When using the 48kHz sample rate a +300/-200 cent pitch change is possible. When using a 44.1kHz sample rate a ±200 cent pitch change is possible

- ■ Uses crossfading when punching in and out to make the transition from what's recorded on tape to what is being punched, as smooth as possible. There are four crossfade times available -11, 21, 32 and 43 ms.
- ■ Analog and digital input select buttons determine how analog and digital signals are routed. When recording from the analog inputs, there are three input modes available to accommodate the different bus architectures of mixing consoles.
  - — When using a 2 bus mixer, mode 1 will route 2 inputs into groups of 4 so that the same audio goes to tracks 1, 3, 5 and 7 and 2, 4, 6 and 8.
  - — For 4 bus mixers, mode 2 routes 4 inputs into groups of 2 so input 1 goes to tracks 1 and 5, input two goes to tracks 2 and 6, input three to tracks 3 and 7 and input four to tracks 4 and 8.
  - —All 8 inputs get routed consecutively to tracks 1 through 8.

Transport Controls

- ■ Transport controls include rewind, fast forward, stop, play and record. Audible cue and review at three times normal speed is achieved by simultaneously pressing the rewind and play buttons (review) or fast forward and play buttons (cue).

Inputs and Outputs

- ■ 8 unbalanced RCA inputs and outputs
- ■ One ADAT optical lightpipe input and output carries 8 channels of digital audio between ADATs and ADAT lightpipe compatible devices such as various digital audio cards and mixers. This allows you to bounce audio from one ADAT to another, mix and edit tracks completely in the digital domain
- ■ ADAT proprietary 9-pin female sync input and output allows synchronization and machine control between multiple ADATs and optional BRC remote control.
- ■ 1/4″ TRS jack for supplied LRC (Little Remote Control) or punch pedal

Display

- Time counter shows the current location of the tape in hours, minutes, seconds, hundredths of a second or optionally frames (1/30th of a second).
- Eight 13-segment meters show either input levels or the levels already recorded on tape. Eight red Record indicators located directly beneath the meters show a track's record status while blue indicators show input monitor status.
- Three blocks on the lower right hand corner of the display show the active parameter for clock (internal, external, digital) and sample rate (44.1 or 48 kHz), input monitor (all or Auto) and input source (analog, digital or track copy).
- Status indicators show the bit depth of the current tape (16 or 20-bit), whether various locate functions are enabled, and if a cassette is properly inserted.
- An interpolation indicator, shown as an asterisk at the upper right hand corner of the time display, warns that error correction is taking place within the LX-20 and the heads should be cleaned.

8-track Modular Digital Multitrack (MDM) Recorders

The ADAT family of modular digital multitrack (MDM) recorders have revolutionized the pro audio industry. They have led the way to the introduction of today's project studio where they have become an integral part of the recording industry, sophisticated enough to compete in high-end commercial recording studios. Without sacrificing audio quality, the ADATs offer artists the creative freedom to craft their music when they are inspired, without the burden of hourly rates and booking studio time. Now in their third generation, the ADAT Type-II machines feature 20-bit recording and an extensive list of internal editing capabilities such as Track Copy as well as multiple interfacing and sync options.

Auto Locate

There are 5 Locate buttons. Locate buttons 1 through 4 are used for shuttling to specific points on a tape. Locate button 0 returns the tape to the zero position. Locate buttons used in conjunction with the Auto Play, Auto Return and Auto Record functions, facilitates a number of automated transport functions:

- Auto Return brings the tape back to the locate 1 position after reaching locate 4.
- Auto Play sends transport into play mode when a locate point is reached.
- Selecting Auto Play and Auto Return causes the tape to continuously loop between Locate points 1 and 4.
- Auto Record and Locate 2, 3 enables precise punch in/out of one or more tracks.
- Auto Record can be used in conjunction with the Auto Play and Auto Return buttons for continuous loop recording.
- Rehearse mode automatically switches from tape monitor to input monitor at the punch in point and back to tape monitor at the punch out point allowing you to audition punches before executing them.

XT-20 *ADAT Type-II 20-bit Digital Multitrack Recorder*

With its faster transports and extended editing capabilities the XT-20 sets the new standard for modular digital multitracks. Balanced and unbalanced analog as well as the standard ADAT optical I/O and sample accurate sync provides the widest range of interfacing possibilities within an all digital or analog based studio. Advanced editing features such as internal track bouncing and up to 170ms of track delay are some of the tools that put this machine on the cutting of professional audio technology

All the Features of the LX-20 *PLUS*—

- 10 locate points
- Separate 1/4″ TRS connectors for LRC (Little Remote Control) and punch pedal.
- Track to track copying (up to 4 tracks at a time) is possible within the digital domain of one machine without the need for cables.
- You can delay any track up to 170ms in 0.1ms increments. This can be used to tighten up the timing of a performance.
- In addition to 8 unbalanced RCA inputs and outputs, there is a female ELCO block connector that carries 8 channels of balanced inputs and outputs to a compatible male ELCO snake.

M20

ADAT Type-II 20-bit Digital Multitrack Recorder

The M20 is designed for advanced recording applications such as sound for video, where sync capabilities and around the clock reliability are required. With ultra fast transport operation, uncompromising audio quality, and the ability to read and generate all SMPTE/EBU time code formats, the M20 can seamlessly integrate into any production environment. An example of the level of control provided by this benchmark multitrack, is its dedicated analog audio track and jog shuttle that enable reel rocking style scrubbing, as well as 100 locate points accessible directly from the 10-key alphanumeric keypad.

All the Features of the XT-20, *PLUS*—

24-bit Audio

- 24-bit analog to digital (A-D) and digital to analog (D-A) converters
- Optical digital I/O carries 8 channels of optional AES/EBU I/O with up to 24-bit resolution. A 24-bit AES/EBU card is also available.

Input/Output

- In addition to an ELCO connector, offers +4dB balanced XLR (analog) inputs and outputs for all eight channels. Has a +4dB balanced XLR input/output for the auxiliary analog audio (cue) track as well.

Synchronization

- Word Clock I/O (BNC) ensures that digital audio data transferred among compatible devices is synchronized. The M-20 can accept a master word clock signal from an external source then pass it along to other devices in the chain. The M-20 itself can be the word clock master.
- Composite video input/output (BNC) accepts composite and blackburst video signals. Frame rates are set automatically when referencing to video.
- MIDI in and out connectors can send or receive MIDI machine control commands; allow software updates via MIDI sysex; and will generate MIDI time code from SMPTE. Setup information including locate point names and addresses, track delays and tape offsets can be dumped via MIDI to another M20 or to a MIDI sequencer for storage (This data can also be saved to tape).

Time Code

- Reads and generate SMPTE time codes including 24, 25, 29.97 and 30 DF/NDF frames per second. Uses XLR connectors to slave to an external device or output timecode to a slave deck such as a VCR.
- Time code can be selected as Free-Run (continuously generated) or Record-Run (only generated while recording).
- Dedicated SMPTE track records timecode directly to tape.
- SMPTE and MTC (MIDI Time Code) can be set to output whenever tape is moving (FF, REW, cue and review)
- Expressed in Hrs/Min/Seconds, frames, subframes and samples, the SMPTE offset value is settable against Absolute Time (ABS) or tape time code ±24 hours
- The M-20 will chase SMPTE timecode based on ABS (Absolute Time) as its reference or tape time code.
- A master M20 deck can be offset with slave ADATs or M20s individually or as a whole. The offset amounts can be set by Absolute Time or two locate points.
- The M20 has two SMPTE chase modes:

Frame-Lock: It locks to incoming time code while still referenced to its internal timecode.

Lock and Release: It locks to the incoming time code and ignores its internal time code reference.

- In both chase modes the flywheel duration parameter sets the number of dropped frames that will be ignored (up to 150).

—In frame-lock mode, the flywheel duration determines how many frames can drop before the M20 has to re-chase timecode.

—In Lock and Release, the fly wheel setting determines how long the M-20 will play in the absence of timecode before stopping.

Metering

- Has three multi channel metering modes; No Peak Hold– meter levels reflect the current input signal's level. Momentary Peak Hold– peak levels of the input signal are held for a brief time. Continuous Peak Hold - the highest peak input signal is held until reset with the clear peak button
- VU meter scaling, headroom and decay time and peak hold time are all adjustable.

—Scaling is switchable between a normal meter range of -72 to 0dB and a fine setting of 2.0 to +2.0

—Headroom parameter defines the value of the 0dB marker. Ranges from 2 to 22dB in 1dB steps with a default of 15dB.

—Decay time is settable from 1 to 99 (each value represents milliseconds). 99 equals 500 milliseconds or 1/2 second. Default is 10 or 50 milliseconds.

—Peak hold time has a value range of 1 to 99 with each value representing 250 milliseconds. 99 equals a 24.75 second peak hold. Default is 8 or 2 seconds

Jog/Shuttle Wheel

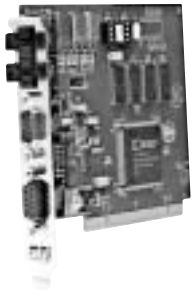
- Jog/Shuttle dial allows scrubbing of the analog cue track in forward and reverse. Also allows precise shuttling from 1/4 to 16x speed for fast navigation.
- In a master/slave configuration, the master's jog/shuttle wheel controls both decks. Search Master feature enables transferring the Jog control from the master deck to a slave temporarily.
- Search button toggles control of the transports between the Jog/Shuttle wheel and standard play mode. Engaging the search function transfers transport control to the Jog/Shuttle, when disengaged, the transport automatically enters play mode.

Additional Features

- Ten-key alphanumeric keypad enters parameter values such as locate points and letters for names
- Three tape counter modes display either ABS (Absolute Time), SMPTE time location and relative time, referencing the current tape location to the relative zero location.
- When executing a punch, there are 32 crossfade times settable from 5.4ms to 1.365 seconds.
- RS-422 interface allows control from a video edit controller
- RJ-45 (ethernet) connector interfaces to the optional Remote Meter Bridge and CADI for remote control from hundreds of yards away.

ADAT Accessories

ADAT EDIT *Computer-Based Editing System for all ADATs*



The ADAT EDIT package contains everything you need to edit ADAT tracks on a Power Mac or PC. Using the ADAT PCR card and ADAT Connect software you can transfer 8 channels of digital audio with up to 24-bit resolution, to and from your computer. And with the ADAT/Edit software, audio can arranged and edited before being sent back for mixdown or archiving. ADAT/EDIT system also works with many WAV or ASIO-compatible recording and editing software programs.

- Includes PCR interface card, ADAT Connect and ADAT Edit software, two optical cables and sync cable (3m each).
- ADAT Optical I/O and ADAT sync I/O allows transfer of 8 tracks of audio with transport control between your ADAT and Mac or PC.
- Supports 16-, 20- and 24-bit audio at 44.1 and 48 kHz.
- ADAT/Connect software works in tandem with the ADAT Sync interface allowing sample-accurate audio transfer between an ADAT and the ADAT PCR card.
- ADAT Edit software allows cut-copy-paste editing of your audio. It also provides powerful digital signal processing capabilities such as reverb, delay and EQ as well as advanced tools like time compression, pitch correction and dynamics processing.
- Compatible with .WAV and .AIF files using Windows 95/98 and ASIO, .AIF and .SDII on the Mac.
- Compatible with all ADATs even the original ADAT classic and XT, as well as today's Type II ADAT machines.
- Add the AI-3 analog-optical interface and the ADAT EDIT system becomes a standalone 24-bit digital audio workstation.

BRC *Master Remote Control for LX-20 and XT-20*

The ultimate control interface for the ADAT LX-20 and XT-20, the BRC offers several creative options not available with ADATs on their own. In addition to mimicking the existing features of an ADAT, the BRC provides SMPTE, MIDI and video synchronization, digital editing, and a full-function multi-machine autolocator with onboard memory.

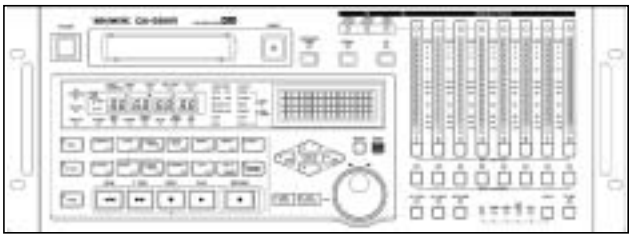
CADI *Controller Autolocator Desktop Interface for M20*

Specifically designed for use with the M20, the CADI offers flawless control of the recorder's transport and track arming functions including the jog/shuttle wheel. The CADI connects with the M20 using an Ethernet-style RJ-45 connector, allowing the two to be operated hundreds of yards away from each other (ideal for studios that keep recorders in a separate area from the control room). The CADI can directly control up to eight M20s from its front panel, for a total of 64 tracks (plus time code and eight aux tracks).

DA-78HR/DA-98HR

High Resolution 8-Track Digital Audio Recorders

The DA-78HR and DA-98HR are the first true 24-bit tape-based 8-track modular digital multitrack recorders. Based on the DTRS (Digital Tape Recording System) they provide up to 108 minutes of pristine 24-bit or 16-bit digital audio on a single 120 Hi-8 video tape. Designed for project and commercial recording studios as well as video post and field production, they offer a host of standard features including built-in SMPTE Time Code Reader/Generator, MIDI Time Code synchronization and a digital mixer with pan and level controls. A coaxial S/PDIF digital I/O with the mixer allows pre-mixed digital bouncing within a single unit, or externally to another recorder or even a DAT or CD recorder. Up to 16 DTRS machines can be synchronized together for simultaneous, sample accurate control of 128 tracks of digital audio.



The top-of-the-line DA-98HR has all the features of the DA-HR78 plus adds all of the capabilities required for video post-production . In addition to SMPTE and MIDI time code, the DA-98HR features Sony 9-pin RS-422 control, video sync, AES/EBU digital I/O, user friendly setup menu with comprehensive LCD display and direct menu access soft keys.

Inputs and Outputs

- Eight unbalanced analog RCA inputs and outputs
- Two 25-pin d-sub connectors provide eight channels of balanced analog inputs and outputs
- A 25-pin T/DIF (Tascam Digital Interface) connector is used for transferring up to 8 channels of digital audio to and from units conforming to the T/DIF format.
- Remote punch in/out connector for use with the optional RC-30P footswitch

Synchronization I/O

- An RCA (phono) input and output allows all SMPTE/EBU timecode frame rates to be read or generated.
- MIDI in/out/thru allows MIDI timecode (MTC) synchronization as well as MIDI Machine Control (MMC)
- Remote/ Sync In and Sync out used for connection with optional RC series remote controls as well as allowing the unit to be used in a master/slave system.
- Word clock in, out and thru (BNC connector) ensures that digital audio transferred between machines via T/DIF or S/PDIF I/O is synchronized.

Auto Locate And Punch

- The points at which recording is started and stopped are automatically stored in memory as punch points.
- Auto Punch allows hands-free punch in and out recording of a section of audio. A rehearsal function allows setting and auditioning the in and out points before executing the punch.
- Two Auto Locate points allow one button access to any two positions on a tape, or use for a beginning and end marker for continuously looping a section of audio.
- The exact position of locate and punch points can be set by min/sec/frames.
- Pre-roll times for locate and punch points are independent and can be set from 0 seconds to 59 minutes and 59 seconds.
- When executing an edit or punch, the crossfade time between the signal on tape and the input signal to be recorded, can be set from 10 to 90ms (milliseconds).
- In Auto Play (after rehearsal is complete) the tape automatically rewinds to the pre-roll position before the punch in location.

On-board Stereo Mixdown Functions

- Level and pan controls for each channel (controllable via MIDI or from the front panel of the unit).
- They have a read before write feature that allows tracks 1 through 8 to be bounced to tracks 7 and 8.
- Digital direct-track copying within a single unit or between multiple units.
- Coaxial S/PDIF digital I/O accommodates direct mixdown from the DA-78HR multitrack to a compatible digital recorder such as DAT, CDR or DAW.

AMERICAN EXPRESS Cards VISA MasterCard DISCOVER

DA-78HR/DA-98HR

Transport Control

- Standard transport controls include Play, Record, Fast Forward, Rewind and Stop
- Precision rotary shuttle knob advances or rewinds tape at 1/4 to 8 times normal speed. While shuttling tape, the monitor output level is automatically attenuated by 12dB of the normal playback level.
- Shuttle monitor button mutes the overbearing, high pitched squeals associated with high speed shuttling.

Synchronization

- Full SMPTE/EBU operation with onboard time code reader/generator and support for all frame rates including 29.97 DF/NDF 30, 25 and 24 fps.
- ABS (Absolute Time) can be synthesized (converted) to SMPTE time code. SMPTE time code can also be offset from the ABS time code.
- When time code is on part of a tape and you want to stripe the rest, an assembly time code function will read a few seconds of the time code and jam sync the generator and stripe the rest of the tape.
- Re-chase time code is achieved by constantly monitoring the internal time code (or Absolute Time equivalent) and external timecode by slowing down and speeding up the transport to ensure consistent sync or it can run freely once the initial sync has been achieved, ignoring incoming time code. The re-chase window settable to 1 or 2 seconds, determines the amount of drift that is tolerated before re-chasing is necessary.
- Time code errors of 10 or 30 frames can be set up to be bypassed and ignored.
- The park position of a slaved DTRS machine is the pre-roll time needed for the machine to lock to timecode. Park position can be preset or automatically set to the optimum park position.
- MTC (MIDI Time Code) support allows synchronization between the DTRS machine and a MIDI sequencer or other compatible device and can be output when the DTRS is playing, in FF, rewind or when stopped.

High Resolution DTRS Technology

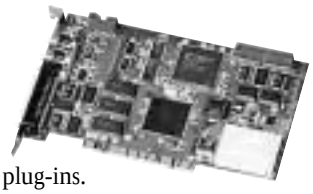
- ➤ Selectable 24-bit and 16-bit recording at 44.1 or 48 kHz sampling rate
- ➤ 24-bit, 128x over-sampling analog to digital and digital to analog converters
- ➤ 1 hr. 48 min. recording time on a single 120 Hi8 tape
- ➤ 20Hz - 20kHz frequency response and 104dB dynamic range
- ➤ Fully backward compatible with existing (non-HR) DTRS multitracks.
- ➤ Up to 16 DTRS machines can be linked together with sample accuracy yielding a total of 128 audio tracks
- ➤ When syncing multiple DTRS units, it is sometimes necessary to offset the time between one or more slaves in relation to the master deck. All DTRS units have frame accurate offset capabilities independent of SMPTE time code functions.
- ➤ Track Advance and Track Delay from -200 to 7200 samples in 1 sample steps can add subtle nuances to a musical groove or tighten the synchronization of a sound effect.
- ➤ The tape formatting process writes subcode information such as ABS (Absolute Time) and ATF (Automatic Track Finding) data on the non-audio portions of the Hi-8 tape. Timing information is embedded in the subcode area of a tape using helical scanning. This ensures machine to machine compatibility of tape with no potential for loss of timing information due to tape stretching or fraying.
- ➤ Exclusive, interleaving write after read 4-head system provides superior drop out protection and yields significantly more area read on tape.

Editing

- Digital Track Copy function allows assemble or composite editing between machines or within a single unit. For example, you can copy tracks 3 and 4 to tracks 5 and 6 within one machine or you can copy tracks 3 and 4 of one machine to tracks 5 and 6 of another machine.
- Highly accurate and reliable transport mechanism features DD brushless motors.
- Built-in digital patchbay allows routing any input to any track digitally. For example input 1 can record to track 2 and input 2 can record to track 1.
- Offset times between master and slave units(s) can be set on the fly while machines are in the play mode, or by entering a specific offset time.

SOUNDSCAPE MIXTREME

T/DIF Compatible PCI Digital Audio Card



A flexible Windows-based audio card built around dual T/DIF connectors, Mixtreme is ideal for interfacing your PC to a digital mixer or DTRS compatible multitrack recorder. Relies on its own DSP to handle mixing and effects which greatly reduces the latency associated with Native or DirectX plug-ins.

- Includes Mixtreme mixer software
- 16-channel, 24-bit digital I/O via two 8-channel T/DIF connectors
- ASIO and Multimedia Drivers for Windows 95/98 and NT4
- Multiple card support for up to 64 channels of I/O
- Word clock/Superclock I/O (RCA jacks)
- Optional ADAT to T/DIF (SS8IO-2) and 20-bit analog to T/DIF (SS8IO-3) interfaces as well optional S/PDIF and video sync daughter boards

Mixtreme **499.95**

DA-78HR/DA-98HR

Conveniences

- All Input Monitor Button automatically sets all outputs to monitor the audio inputs, regardless of the transport status. This function is primarily used for alignment purposes and is equivalent to pressing all of the input monitor switches.
- Auto Input/Auto Monitor switch automatically activates the inputs when shuttling, fast forwarding or rewinding or in stop mode. This is useful for allowing talent to communicate with the engineer when no audio is being played.

Additional Features

- Pitch is variable ± 6% in 0.1% steps
- All functions are front panel accessible including, machine ID (used in multi machine configurations), trim and tape locate positions, test tone oscillator and defining pre-roll time.
- Fast frame accurate tape location and positioning; end to end winding of a "120" tape is 80 seconds
- When recording from a 20-bit - 24-bit word length to a 16-bit word length, dithering can be set to add noise to low level signals to prevent unwanted quantization noise to the signal. There are three dither settings available: No Dither, Triangular and Rectangular which gives 3dB better signal-to-noise ratio than triangular but may add but may add noise modulation to the signal.
- 12-segment LED peak reading level displays
- Internal digital sine wave generator provides signals of A-440 and 1kHz at the nominal operating level of +4dBu for tuning and meter calibration
- You can have the DA-78HR display how many hours the drum heads have been utilized by holding the Stop and Play buttons while powering on the machine. This is useful for determining when routine maintenance such as head cleaning may be necessary.

MOTU (Mark of the Unicorn) 2408 and 1224

Computer-based Hard Disk Recording Systems

Based on the PCI-324 PCI card that can connect up to three audio interfaces, providing up to 72 channels of simultaneous I/O. The 1224 includes eight analog I/O (balanced 1/4-inch TRS connectors) with the latest 24-bit A-D/D-A converters. The 2408 includes eight analog I/O (RCA) with multi channel ADAT optical and T/DIF digital I/O. Each interface can be purchased separately or with a PCI-324 card allowing you to build a system to suit your needs. Systems include drivers for all of today's hottest audio software. Host computer determines the number of tracks that the software can record and play simultaneously, as well as the amount of real-time effects processing supported.

The 1224 and 2408 both include AudioDesk Audio Workstation Software for Mac. It features 24-bit recording, multi-channel waveform editing, automated virtual mixing, graphic editing of ramp automation, real-time effects plug-ins with 32-bit floating point processing, crossfades, support for third-party audio plug-ins, background processing of file-based operations, sample-accurate editing and placement of audio, and much more!

MOTU 2408

- 7 banks of 8-channel I/O:
—1 bank of analog (RCA)
—3 banks of ADAT optical
—3 banks of T/DIF, plus stereo S/PDIF
- Format conversion between ADAT and T/DIF compatible devices
- 20-bit A/D and D/A converters
- 24-bit internal data bus for full 24-bit recording via digital inputs
- Standard S/PDIF I/O for digital, plus an additional S/PDIF out for the main mix
- Sample-accurate synchronization with ADAT and DTRS machines via ADAT sync in and RS-422

MOTU 1224

- 24-bit analog audio interface
- Simultaneously record and play back 8 channels of balanced (TRS) +4 dB audio
- 24-bit balanced +4 XLR main outputs
- Stereo AES/EBU digital I/O
- Word clock in/out
- Dynamic range of 116 dB (A-weighted)
- Front panel displays six-segment metering for all inputs and outputs
- Headphone jack with volume knob

DA-98HR (only) *High Resolution Digital Multitrack Recorder*

Not only can the DA-98HR record 8-tracks of 24-bit audio at 44.1 and 48 kHz, it can also record 4 tracks of 24-bit audio ar 96kHz and 2 tracks of 24-bit audio at 192kHz making the DA-98HR the ultimate mixdown deck. The DA-98HR builds on the DA-78HR and adds critical features for post production including the availability of AES/EBU digital I/O for instant integration into digital patchbays, DAWs, and more! The DA-98HR can also be controlled with standard DTRS remotes, or via serial 9-pin.

DA-98 Step Up Features

- Confidence replay mode allows direct monitoring off of tape while recording.
- Input monitor mode allows channel by channel source monitoring regardless of tape transport status.
- Simplified source/tape monitoring functions with automatic switching.
- 10-soft key location memories in addition to the basic memo 1 and memo 2 locate points used for looping and punches.
- Ten most commonly used functions can be assigned to soft keys.
- There are three user setup memory banks for storing setup profiles.
- Menu settings are displayed on a LCD display with cursor and Enter/Escape keys
- 15-segment peak level meters have selectable fall ballistics and hold time ranging from 0 to 9 seconds and continuous peak hold.
- Pull up and pull down functions are provided to adjust sampling frequencies to drop frame rates. For example, since the frame rate of film (24 FPS) and the frame rate for video (29.97 FPS) don't conform to a simple mathematical ratio, audio sampling frequencies would be affected on transfer back to film.
- Reference levels for the analog I/Os are selectable between three standard values: Tascam (-16dB), SMPTE (-18dB) and European (-20dB).
- Edit and punch crossfade times are selectable between 10 to 200ms.

Inputs/Outputs

- Four stereo XLR balanced AES/EBU digital I/Os.
- XLR balanced time code In/Out provides connections for SMPTE time code sync functions DA-98.
- Video In/Thru BNC connectors carry video frame sync signals when the DA-98HR is used with professional video equipment. The self-terminating thru connector echos the input signal.
- The RS-422 connector is used to control the DA-98HR from an edit controller conforming to the Sony 9-pin protocol.
- Control I/O allows parallel control of the DA-98HR.

Optional Remote Control Units for the DA-78HR/DA-98HR

RC-808 Remote Control: Controls all of the basic transport functions including, record, auto-locate, monitor switching, track arming and punch

RC-828 Remote Control: For controlling up to four DTRS machines with transport control, track arming, 12 locate memories, jog/shuttle and more.

RC-898 Remote Control: Provides accurate control of up to 6 DTRS machines including all basic transport functions, input monitoring and track arming. It also controls the transport functions of external units conforming to the Sony P2 protocol using the RS-422 interface, as well as parallel and GPI controlled devices.

- No power supply, draws power from DTRS units.
- Up to 99 location memories can be stored and edited with frame accuracy.
- Time code values are input with a positive feel numeric key pad.
- Convenient menu system with 20-character by 4-line backlit LCD display.
- Shuttle wheel mimics the DTRS' shuttle wheel, jog dial provides frame accurate manual locating and data entry.
- Twenty frequently accessed menu settings can be assigned to function keys for quick and easy recall.
- All time code formats are supported as well as pull up/pull down.
- Up to 10 setup configurations of the RC-898 and up to 6 DTRS units can be stored in memory for instant recall.
- Location memories and configuration settings are stored using battery backed memory.
- Includes remote/sync cable and remote/sync terminator.

MX-2424

24-bit 24-Track Hard Disk Recorder

Co-designed by TASCAM and TimeLine Inc., the MX-2424 is an affordable 24-bit, 24-track hard disk recorder that also has the editing power of a digital audio workstation. A 9GB internal hard drive comes standard as well as a SCSI Wide port that supports external LVD (Low Voltage Drives) hard drives from up to 40 feet away. An optional analog and several digital I/O cards are available so the MX-2424 can be configured to suit your work environment. SMPTE synchronization, Word Clock, MIDI Time Code and MIDI Machine Control are all built in for seamless integration into any studio.

FEATURES

- Records 24 tracks of 24-bit audio at 44.1 or 48 kHz, or 12 tracks at 88.2 or 96 kHz. Up to 24 tracks can be recorded simultaneously using any combination of digital and analog I/O.
- Supplied 9GB internal drive allows 45 minutes of audio across all 24 tracks.
- Wide SCSI port on the back panel allows you to add multiple drives. There is also a front panel 5-1/2″ bay available for installing an additional drive, or an approved DVD-RAM drive for back-up, using affordable DVD-RAM media.
- Can record to Mac or PC formatted drives, allowing later export to the computer for other functions. When recording to Mac disks, the audio is recorded in SDII (Sound Designer II) format, while PC disks will record in WAV format.

Integration

- Using a format compatible with digital audio/sequencing programs and digital audio workstations called Open TL, these systems can read and write to/from the disks used in the MX-2424 to offer playlist compatibility and recognition of virtual tracks without have to load, reposition and trim each digital file.

Transport Controls

- Jog/scrub wheel
- MIDI In, Out, and Thru ports are built-in for MIDI Machine Control.
- A footswitch port lets you use a punch-in pedal, or an Alesis LRC remote control.

Editing

- Built-in editing capabilities include cut, copy, paste, split and ripple or overwrite
- 100 levels of undo
- TL Tape Mode is a destructive recording mode that rewrites directly over the existing track or tracks during loop recording.
- Loop Mode is a non-destructive recording mode that continuously records new takes without erasing the previous version. Edit the best of all the takes into a composite or experiment with different ideas.

Word Clock

- As with time code, word clock has In, Out, and Thru ports. The Thru port is hardwired to the In, so there is no delay in passing the signal to the next unit. The out port is used if the MX-2424 is the word clock master.

ViewNet MX-2424

The MX-2424 can be controlled with the supplied ViewNet MX software, a Java-based GUI that works on Mac or PC. ViewNet MX offers DAW style editing of audio regions, dedicated system set-up screens that make set-up quicker and easier, and track load screens that make virtual track management a snap. MX-2424 connects to a computer via a standard Ethernet line, requiring standard ethernet cables and a hub.

Built-In Synchronization

- The MX-2424 utilize a protocol called TBUS, which can sample accurately lock 32 machines together for 384 tracks at 96kHz, or 768 tracks at 48kHz!
- The MX-2424 can generate or chase SMPTE timecode or MIDI Time Code. The time code ports on the back offer TC In, Out and Thru. The in is for chasing time code. The TC Thru port is hardwired to the In port, allowing the time code to pass through the MX to the next unit without any delay. The TC Out can output time code when it is the master, or it can even provide an offset from incoming time code.

Software Updates

- System updates are made available through a Smart Card slot in the front panel. Furthermore, if you have the MX-2424 connected to a computer via Ethernet, you can download the updates directly from the TASCAM web site.

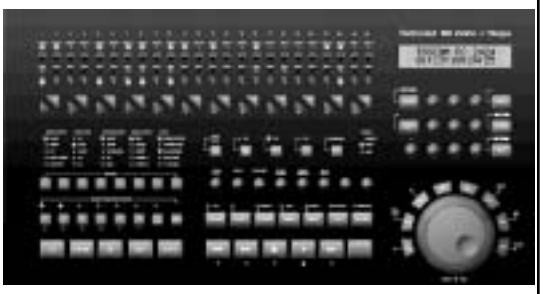
I/O Options

- Optional analog and digital cards all provide 24 channels of I/O. There are two slots available (one dedicated for analog and one for digital) so an analog and a digital option can be installed together.
- IF-TD24- T/DIF module
- IF-AD24- ADAT Lightpipe module
- IF-AE24- AES/EBU module
- IF- AN24- A-D, D-A I/O module with DB-25 connectors

Overnight Shipping Available

Multi-Track Accessories

RC-2424 *Remote Control for the MX-2424*



- Offers complete transport control and system set-up
- Familiar front panel layout of MX-2424
- Controls multiple MX-2424 machines
- 8 user-definable macros for frequently used keystrokes
- Additional functions for controlling the TL-SYNC
- Status lights offer immediate indication of important functions of the recording system
- Additional keys dedicated to editing functions, like capturing and auditioning in/out points for punch-ins or edits, allow you to work faster and more comfortably.

TL-SYNC *Multi-Format Synchronizer*

Part of the new TASCAM by TimeLine family, the TL-SYNC is the first high-quality, multi-purpose synchronizer designed to meet the needs of today's digital professional. A powerful tool, TL-SYNC works with the MX-2424, RC-2424 or as a stand-alone unit anywhere high-performance synchronization is desired. Ideal for video production facilities, multimedia development labs and project studios.

- Complete integration with the MX-2424 via the TBUS for audio post and synchronization needs
- DTRS, ADAT, and TBUS sync outputs for sample accurate MDM (Modular Digital Multitrack) transport control
- 2 sets of MIDI I/O for MIDI Time Code and MIDI Machine Control
- LTC SMPTE Time Code, 1 in x 2 out for reading, digital clock generation, and chasing/generating LTC
- Equipped with one RS-422 input and four RS-422 outputs
- AES/EBU, S/PDIF and Word Clock I/O for lock and generation
- Video input for lock and pass through of black-burst and composite video signals (TL-Sync doesn't generate video)
- High sample rate clock: 1 input plus 4 outputs for generation and lock to various clock frequencies
- Industry-standard clock rates include: 44.1, 48, 88.2, 96, 176.4, 192 kHz and 256Fs
- Super Clock I/O for lock and generation of the Digidesign compatible 256x Digital Clock
- Lynx Bus support for TimeLine Lynx-2 and KCU
- Java-based set-up application for visual display and parameter adjustment from a Mac or PC
- ADR Beep connector and dedicated System Tally / GPI connector
- Virtual Device mode allows control of all connected devices via MMC or RS-422

Tascam T/DIF Interfaces

IFAE8
T/DIF to AES/EBU Digital I/O.....**439.95**

IFTAD
T/DIF to ADAT Optical Interface.....**179.95**

Sync cables used to chain multiple DTRS machines together in a system

PW88S (3´) **16.50**
PW88M (16´) **15.50**

Cables used to transfer digital audio to and from T/DIF compatible devices

PW88D (3´) **17.95**
PW88DL (16´) **29.95**

ProCo

Excelline Multitrack Snakes

Analog Breakout Cables for the MX-2424 and DTRS Multitracks

DB25 to 8 balanced 1/4˝ TRS (male) phone jacks
#DA88BQ5 (5')....**79.95**
#DA88BQ5 (5')....**83.50**
#DA88BQ15 (15')....**89.95**
#DA88BQ20 (20')....**94.95**

DB25 to 8 balanced XLR (male) connectors
#DA88XM5 (5') **76.95**
#DA88XM10 (10') **77.95**
#DA88XM15 (15') **82.50**
#DA88XM20 (20') **96.50**

DB25 to 8 balanced XLR (female) connectors
#DA88XF5 (5') **73.50**
#DA88XF10 (10') **77.50**
#DA88XF15 (15') **83.50**
#DA88XF20 (20') **88.95**

AES/EBU Digital Breakout Cables for the MX-2424* and DA-98HR

Yamaha (#YAAESEBUC) .....
DB25 to 4-XLRM and 4-XLRF 15' **124.95**

Panasonic (#PADADBAES) .....
DB25 to 4-XLRM and 4-XLRF 15' **159.95**

Hosa (#HODB254XMF) .....
DB25 to 4-XLRM and 4-XLRF 16.5' **64.95**

***Requires IF-AE24- AES/EBU Module**

D-8

8-Track Digital Audio Workstation

A portable all-in-one 8-track hard disk recorder with integrated mixer and digital effects, the D-8 allows up to 4.5 track hours (34 minutes for 8 tracks) of CD quality recording time on the supplied 1.4GB internal hard drive. As easy to use as a regular multitrack tape recorder, plus the ability to record, edit and mix —all within a single streamlined unit. For video applications, the D-8 offers MTC (MIDI Time Code) synchronization to integrate into video production environments.

FEATURES

- 8-track digital multi-track recorder with 16-bit/44.1kHz uncompressed recording and playback.
- Records up to two tracks simultaneously
- 18-bit linear, A to D, D to A conversion and 24-bit signal processing throughout to ensure signal integrity.
- 1.4 GB internal hard drive allows 4.5 hours maximum for one track, 34 minutes maximum for all 8 tracks
- LCD display shows record and playback levels, time data and values of editing parameters
- 50 songs can be stored in memory
- Three locate memories and 100 marker points per song
- 25-pin SCSI port can support up to seven 4GB hard disk drives for additional storage and archiving.

Mixer Section

- 12 channel 4 bus mixer
- 6 mono and 1 stereo fader with dedicated pan pot for controlling volume and left right balance of audio tracks
- 2-band EQ is available for all input and mixer channels— high shelving 10kHz and low shelving 100Hz ±15dB
- Fader, EQ, pan, effect and aux send settings for each channel can be stored as a scene (20 scenes per song).

Inputs/Outputs

- Two 1/4″ balanced mic/line inputs accept a variety of sources from vocals to guitar to keyboard
- RCA monitor outputs
- Mono RCA unbalanced auxiliary send
- Stereo RCA unbalanced aux returns
- 1/4″ headphone output with level control

Editing

- Non-destructive cut, copy, paste delete and swap track editing as well as copy, move, delete and recover song editing is supported, each with one level of undo.
- Scrub function offers reel rocking style audible cue and review of a track, making it easy to find edit points .
- Auto and manual punch in and out

Effects

- Internal 24-bit/44.1kHz effects include 65 programs, each of which uses up to four effects based on 50 effects algorithms. Effects can be edited and stored in 65 user memory locations
- Effects programs can be recorded to a song or track by inserting them or by using them as a master effect.
- The effects processor can be used as mono in stereo out, stereo in/ stereo out and dual mono.

Digital I/O

- S/PDIF optical digital I/O allows connection between the D8 and digital devices such as a DAT, CD or MiniDisc recorder
- The digital input's sample rate converter automatically converts 48 and 32 kHz sources to 44.1kHz.

MIDI I/O

- Supports MIDI clock, MTC (MIDI Time Code) and MMC (MIDI Machine Control) and up to 10 tempo map events per song.
- Supports Tap Tempo as well as entering a numeric tempo value.

Conveniences

- Direct Song Access system automatically saves songs and audio phrases to disk without the need to save data manually.
- Advanced Song Auditioning System accesses songs as easily as selecting a song on a CD player.
- Two or more songs can be played back in a specified order, a great way to mixdown several songs to DAT or CD.
- Hands free Audio Trigger Record function automatically starts recording when an audio signal is present.
- Includes a built-in metronome as well as 131 rhythm patterns covering a wide range of musical styles.

D-16

16-Track Digital Audio Workstation

The D-16 is a powerful music workstation that combines true 24-bit digital multi-track recording, mixing, editing and effects in one compact package. The D-16 offers sixteen tracks of 16-bit or eight tracks of uncompressed 24-bit recording (far greater than CD quality), high-quality effects and a 24-channel mixer giving you all the tools you need to create music. Full-digital processing ensures that there will be no loss of audio quality during track bouncing and editing.

FEATURES

- Supports 16-tracks of playback/ 8-tracks of simultaneous record at 16-bit/44.1kHz and 8-tracks of playback/ 4-tracks of simultaneous record at 24-bit/44.1kHz.
- High-quality 24 bit A to D and D to A converters, and 24 bit S/PDIF optical I/O.
- Built-in 2.1 GB hard disk provides a single track with up to 6.5 hours of recording time.
- A built-in SCSI-2 port allows connection of up to 7 SCSI devices for up to 100GB of additional storage and archiving. Supports recording/playback and data backup on various removable media.
- An optional CD-R or CD-R/RW drive can be connected to the SCSI connector to backup data, or to create audio CD's.
- 100 songs can be stored in memory
- There are 4 Locate points and 100 Mark points available in each song
- Mixer settings such as fader, EQ, pan, and effects can be stored as a scene, and 100 scenes can be memorized for each song. Scenes can be switched automatically during playback, or can be recalled instantly as general-purpose setups.
- Supprts MTC and MIDI Clock synch as well as 100 tempo map events per song
- A MIDI sequencer can be used to automate MIDI data such as scene changes.
- Using touch screen technology, the large backlit Touch View display allows highly visual, intuitive navigational control including waveform editing.

Input Channels

- 8 mic/line inputs include: balanced XLR mic/ 1/4″ line inputs for channels 1- 2 and 1/4″ balanced mic/line inputs for channels 3 - 8. There is also a dedicated 1/4″ unbalanced guitar jack.
- 3-band EQ is available for all input and mixer channels— high shelving 10kHz, sweepable mid-band from 20Hz-20kHz, low shelving 100Hz ±15dB.

Effects

- Incorporates a proprietary sound modeling technology called REMS (Resonant Structure and Electronic Circuit Modeling System) to precisely reproduce the complex character and nature of both acoustic and electric instruments as well as electronic circuits in real world environments. REMS emulates a wide variety of sound generation characteristics including instrument bodies, speakers and cabinets, microphones, vacuum tubes, transistors.
- A total of 11 simultaneous effects are available including eight effects that can be inserted into the inputs or mixer channels, two master effects fed by sends from each channel, and an overall effect that is applied to the master output as the last stage of processing. There are 106 types of high-quality effects of which up to five can be combined in an effect program.
- There are 128 presets, 128 user channel insert effects, as well as 32 preset, 32 user effects that can be used on the master send and additional 32 preset, 32 user overall effects.

Editing

- Virtual tracks allow recording up to 8 alternate takes of a part per track. The best take (virtual track) can then be selected or a composite of the best parts of each take (virtual track) can be created.
- Includes Time Stretch and Reverse Playback. Time Stretching can match the tempo of different recordings, or fit recorded data into a specific time length.
- You can record a song from an external source such as record or CD, and then create tempo data that can be used to synchronize this data. Tempo can be recorded on the sync track either by setting a numerical (BPM) tempo (tempo map), or by using the Tap Tempo function to record the tempo (sync track).

Conveniences

- Built-in mic for instant recording access
- Trigger Record function to initiate recording when an audio source starts.
- Built-in auto chromatic tuner can works with guitar bass or an external source via the built-in mic.
- Includes a metronome and 200 rhythm patterns for use as a musical guide.
- 1/4″ unbalanced footswitch jack and 1/4″ stereo expression pedal jack

D-8.....**CALL**

D-16.....**CALL**

FD-4 / FD-8

4- and 8-Track Portable Mixer/Recorders

FD-8

Four and eight-track hard disk recorders, the FD-4 and FD-8 are designed to offer the flexibility of recording to a variety of external removable drives such as Zip, Jaz or MO (Magneto Optical), and/or an internal 2.1GB IDE. Non-destructive editing, integrated analog mixer and 2 effects sends with stereo returns offer a complete solution for recording, editing and mixing. MTC (MIDI Time Code) sync and MMC (MIDI Machine Control) as well as analog and digital I/O allow them to integrate into a wide range of video and audio systems.

FEATURES

- Built-in 25-pin SCSI port allows connection to Iomega Zip or Jaz or MO drives.
- Supports MTC (MIDI Time Code) and MMC (MIDI Machine Control) for synchronization and transport control from a MIDI sequencer.
- Four-channel (FD-4) or eight-channel (FD-8) analog mixers with 3-band EQ (2-band shelving, one band parametric) for each channel.
- When stopped, the jog dial can move forward or reverse for audio scrubbing without pitch change. Can also be used to increase or decrease numeric values or letters when editing. When used with the shift key, shuttling from normal to 64x speed is possible.
- When used together the Auto Play and Auto Return functions allow repeat playback.
- Non-destructive cut, copy, paste and move editing using ABS (Absolute Time), MTC (MIDI Time Code) or bars/beats and clock as a timing reference.
- Preview function allows fine-adjustment of an edit or locate point.
- Undo/redo function for easy correction of recording and editing mistakes.
- Disk Remain Display indicates the available recording time and disk space based on ABS, MTC and Bar/Beat/Clock.
- Stereo Ping-Pong capability allows four tracks to be bounced down to two additional tracks.
- Auto and manual punch in and out with rehearsal feature.
- Recorder in jacks allow direct to digital recording, bypassing the mixer section.
- Bar/Beat resolution feature edits audio at the beginning of the beat.
- Backlit LCD display shows level and timing info as well as operational status.
- Two aux sends per channel and stereo aux returns.
- ±6 % Vari-Pitch function.
- Metronome can be used as a rhythm guide.
- Pre-roll is variable from 0 to 10 seconds.
- 1/4″ punch in/out footswitch connector.
- Separate stereo RCA monitor and main output, headphone output with level control.

FD-4 Only

- Four analog inputs; 1 and 2 support line level signals while 3 and 4 support mic and line level sources.
- Three recording modes: Normal mode with a sampling rate of 32kHz and the longest recording time. Mastering mode and Mastering 2 mode offer 44.1kHz 16-bit linear CD quality recording.
- Inputs 3 and 4 feature channel inserts, XLR mic inputs and a 3 stage input trim switch.
- Optical S/PDIF digital I/O allows recording to and from a DAT, MiniDisc or other digital player/recorders.
- Digital I/O can also be used to back up audio data and setup mode settings to a DAT machine.

FD-8 Only

- 8 playback tracks plus 16 more that can be swapped, allowing you to create alternate takes of an audio section.
- Three recording modes include Normal, Mastering and Backup. Normal mode uses 44.1kHz sampling rate with ADAC (Digital Audio Coding Technique) that allows 67 track minutes of audio to be recorded on a 100 MB Zip disk. Mastering mode uses an optional IDE drive for 17 track minutes per 100MB with *true* 16-bit/44.1kHz CD quality. Backup mode is used to import or export data at 44.1kHz with a removable drive.
- Six 1/4″ line inputs (CH 1 - 6) XLR balanced mic or 1/4″ line inputs (CH 7-8).
- Optical digital I/O accommodates S/PDIF I/O or 8 tracks of ADAT I/O.

Available FD-4 and FD-8 Configurations:

FD4 4-Track Hard Disk Recorder (no drive)

FD421 With 2.1 GB HD

FD4250X With 250 MB ZIP Drive

FD8 8-Track Hard Disc Recorder (no drive)

FD821 With 2.1 GB HD

FD8250X With 250 MB ZIP Drive

VS-840EX

Digital Audio Studio Workstation — Portable All-in-One Digital Mixer/Multitrack Recorder/Effects Processor

Literally recording studios in a box, Roland's Digital Studio Workstations all combine digital disk recording, mixing and effects—allowing you to take your recordings from inception to completion—completely in the digital domain. With sophisticated non-destructive cut, copy and paste editing, pristine digital audio, hundreds of preset and user effects including built-in microphone and guitar amp simulators, they eliminate the need for extra outboard equipment. They include MIDI input/output for synchronization and machine control using a SMPTE to MTC (MIDI Time Code) converter. And, with the optional SI-80S, they can also sync to any Control L-equipped camcorder, editor or VCR . From the cost effective VS-840EX to the flagship VS-1680, songwriters, guitarists and video producers the world over can take advantage of cutting edge audio production technology wherever they go.

FEATURES

Digital Recording

- 20-bit 64x oversampling A/D and 20-bit 128x oversampling D/A converters for pristine audio quality and increased dynamic range.
- Supports 44.1 and 32kHz sample rates.
- Records onto a 250MB Zip drive.
- Four recording modes offer a flexible range of quality vs record time ratios to suit the needs of various applications.
- 8-track hard disk recorder with up to four tracks of simultaneous recording, each of the 8-tracks has 8 virtual tracks allowing you do do multiple takes and then choose best performance or comp the best parts of a number of takes.
- Standard tape recorder style transport controls; Play, Stop, Record, FF, REW
- Vari-Pitch button to change the playback pitch by altering the sampling rate
- Track Cue knob adjusts the volume for each track when monitoring through the Track Cue bus or monitor out.
- Auto Punch button allows hands free punch in and out recording dictated by the Locate 1 (in) and Locate 2 (out) settings.
- Loop function will repeat a section of audio determined by the Locate 3 (start time) and Locate 4 (end time) settings.
- Scrub function enables the scrub/preview function to audibly cue and review a specific section of audio.
- Time/Value dial used to scroll through current time, marker or parameter settings.
- 8 locate points are available per song via dedicated buttons.
- Up to 1000 points in each song can be registered as a mark point to be used as reference.
- EZ routing function visually steps through recording and internal connections for track bouncing and mixdown by asking the user a series of yes or no questions. Quick recording mode requires fewer input parameters and steps with visual confirmation of signal flow.
- Backlit LCD display numerically and graphically displays all pertinent timing and operating information.
- 999 levels of Undo for "no fear" recording and editing.

Mixer Section

- Four mono and two stereo faders with 3-band parametric EQ per channel.
- 12 channels available at mixdown; 8 playback and 4 input.
- Input sensitivity knobs with peak level indicators for input channels 1 - 4 are adjustable to accept mic and line level signals.
- Master Fader is used to adjust the overall output level.
- Headphone output with level control.
- Mixer settings can be saved and registered as a scene. providing an efficient way to recall song settings including levels, panning and effects settings.

Effects

- Built-in digital effects rivaling dedicated units can be connected to the effect bus or inserted into a specific channel.
- Includes multi effects types such as; guitar multi, vocal multi and keyboard multi, spatial effects such as reverb and delay plus mic, acoustic guitar and bass simulators as well as a 10-band graphic EQ.
- 200 preset patches and 200 user patches.

VS-840EX

Editing

- Editing functions include copy, move and erase. For example, you can copy a drum pattern several times or duplicate a chorus to use multiple times in a song. NEW Copy and Insert/ Move + Insert.
- Non-destructive editing allows any edit to be undone and redone (999 levels).
- Song optimization feature deletes sound data that was previously erased (non-destructively) exceeding certain length, opens up disk area and securing remaining disk storage capacity.

Inputs / Outputs

- Input jacks 1 - 4 using 1/4˝ connectors
- Input 1 is a high impedance input jack for direct connection from a guitar.
- Inputs 3 and 4 are duplicated with additional RCA phono type inputs.
- RCA phono type L/R Master Outputs.
- RCA phono type Monitor/Aux jack A and B can be used as either a monitor output or aux send for use with external effects processors.
- MIDI In/Out connectors sends and receives MIDI controller and exclusive data including MTC (MIDI Time Code) and MMC (MIDI Machine Control).
- Foot Switch jack for control recording operations such as start/stop and marker point settings.
- Stereo coaxial and optical digital outputs used for connecting to master decks such as a DAT, CD or MiniDisc recorder.

Additional Features

- Built-in chromatic tuner with a range of C0 to B4.
- Built-in metronome dictated by tempo map, can be output to Master and or Track Cue buses or assigned to an external MIDI sound source.
- Optional VS4S-1 SCSI expansion board allows importing and exporting tracks to an external SCSI-2 compatible hard drive (maximum 1GB).

VS-SERIES ACCESSORIES

DS-90 *Digital Reference Monitors*

Compact near-field reference monitors with built-in bi-amplifier design are the world's first to offer 24-bit digital inputs. Designed specifically to complement the COSM speaker modeling features found in Roland's VS880EX and 1680 workstations. Features include ultra-flat frequency response characteristics, 24-bit digital inputs (optical and coaxial), bi-amplified (60 watts for the woofer and 30 watts for the tweeter), balanced XLR and TRS 1/4˝ analog input connections.

SI-80S *Video-MIDI Sync Interface*

The SI-80S allows VS digital studio owners to easily sync their workstations to camcorders, VCRs and other machines that have a Control L interface.

VS-CDRII

CD-Burner for Data Backup and Audio CDs

The VS-CDRII Recording System includes a 20x read/4x write/2x rewrite CD recorder, CD-R software for both Mac and PC platforms, a SCSI cable for connecting the CD recorder to the V-Studio, an instruction manual, and blank CD-R and CD-RW disks.

- Complete hardware/software bundle allows VS-880, VS-880EX, and VS-1680 owners to burn their own audio CDs directly from the SCSI port of a VS-Series Digital Studio Workstation.
- A multi-session CD recorder, it can also be used as a standard 20x read/4x write/2x rewrite write drive for multimedia software, data storage and audio CD playback on Macs and PCs.
- Includes CD-R software for Macintosh (Toast) and PC (EZ-CD Pro) platforms, SCSI cable, blank CD-R and CD-RW discs

VS-880EX

Digital Studio Workstation

The VS-880EX takes up where the VS-840EX leaves off. It offers a built-in 2.1GB IDE hard drive as well as an external SCSI port for additional storage capability. (Optional VS-CDRII CD-burner is also available for the VS-880EX). It features enhanced effects capability, more inputs and outputs, and can simultaneously record eight tracks (only four tracks on the VS-840EX).

Same features as the VS-840EX PLUS—

- Supports 48kHz as well as 44.1 and 32 kHz sample rates.
- Internal 2.1GB IDE hard drive
- Audio CD recording and data backup via optional VS-CDRII drive
- Up to 8 tracks of simultaneous recording and playback and 16 channel automated mixdown (8 record tracks + 8 inputs)
- 128 virtual tracks of digital hard disk recording (64 virtual tracks x two banks)
- 8 Scenes, 64 Locate Points per song
- Time compression and expansion algorithms (adjustable from 75 to 125%) allow you to adjust the playback time of a song to a specified length of time.

Mixer Section

- Eight mono channel faders with dedicated pan controls for every channel
- 3-band EQ for 8 channels or 2-band EQ for 16 channels
- Aux send knob adjusts the master auxiliary send level

Inputs/Outputs

- 6 balanced TRS inputs and 2 digital inputs (Optical or Coax.)
- 4 analog outputs and 4 digital outputs (Optical and Coax.)
- 25-pin SCSI connector for connection to hard drives or VS-CDRII recorder.

Effects

- Built-in dual independent stereo multi-effects processing with 34 algorithms: Reverb, Delay, Chorus, COSM Guitar Amp Simulation, Voice Transformer, "Lo-Fi" mode, Mic Simulator, Vocoder, etc.
- 210 preset patches and 100 user patches
- Mastering Tool kit algorithm offers mastering quality effects such as split frequency compression

COSM Speaker Modeling

- Developed for use with the Roland DS-90 Monitors, COSM Speaker Modeling emulates speaker types from high-end studio monitors to boombox simulations.

VS-1680 *Digital Studio Workstation*

The VS-1680 represents the new definition of recording power: a 16-track, 24-bit recording, editing, mixing and effects processing system in a compact table-top workstation.

Same features as the VS-880EX PLUS—

- 16 tacks of 24-bit audio recording
- 18-track capability permits mixdown of 16 tracks onto two additional tracks and/or simultaneous playback of 18 tracks
- 256 Virtual tracks (16 x 16 V-tracks)
- 26 channels of fully automated digital mixing (16 tracks + 10 input channels)
- 3-band EQ for 16 channels or 2-band EQ for 26 channels
- Large LCD display provides simultaneous level meters, play list, EQ curves, EFX settings, waveforms and more.
- 2 optional 24-bit stereo multi-effects processors (VS8F-2) provide up to 8 channels of independent effects processing .
- 10 audio inputs: 2 balanced XLR-type inputs with phantom power, 6 balanced 1/4″ inputs, and one stereo digital input (optical/coaxial)
- 12 audio outputs: 8 RCA (Master L/R, Aux A L/R, Aux B L/R, Monitor L/R), and 2 stereo digital outputs (one optical, one coaxial)

CD-150

Professional CD Player

The CD-150 is a solid, straightforward CD player that integrates into any environment. Has a host of features such as Auto Cue, pitch control and programmable playback that make it ideal for DJ, fitness club and PA installations, as well radio and audio production.

- ±6% Pitch Control
- Auto Cue function allows a song to be cued up and paused (ready mode) passed any intro or subcode information that exists before an audio track starts. This allows a songs to start instantly.
- 10-key numeric keypad (with +10 key) for direct access to any track
- Intro Check plays only first 10 seconds of each track on the disc
- Program up to 32 songs to playback in any order. You can visually review the program to ensure its accuracy.
- Repeat function allows all or one track to be repeated. You can also specify an A (start) and B (end) point within a song to be repeated in a continuous loop.
- Time counter display is switchable between total disc playing time, elapsed time of current track, time remaining of current track and total remaining time of disc.
- Analog stereo (RCA) outputs
- Headphone output with level control
- 2U rackmountable
- Includes wireless remote, stereo RCA cable

CD-450 *Professional CD Player*

With great sound, rugged design and a broad range of programming features, the CD-450 can be used in professional applications, including live theater, radio broadcast, production, DJ and sound contractor environments.

- ±12% Pitch Control
- Numeric keypad for direct track access
- Repeat Play mode specifies a track will play in an infinite loop
- Single Play mode stops the CD player at the end of the current track
- Built-in timer allows unattended playback and stop control
- Program up to 30 tracks to play in any order
- Auto Cue function cues any track up to the first frame of audio for immediate playback. Auto Cue threshold level is settable to -72, -66 -60 or -54dB
- Auto ready function, upon completion of the current track, cues the player to the start of the next track and enters pause mode ready for the next cue
- Call key returns to the last Ready cue position stored in memory
- Fader and Event start for recording applications such as flying in sound effects. The CD-450 will begin playing when it receives an audio trigger from an open fader or other audio event.
- Fader stop ceases playback from the CD-450 and automatically cues the player to the next track.
- Program material can be searched by track number, index number or time.
- Selectable display mode shows elapsed time, remaining time or total time remaining
- Will automatically trigger an external machine to commence playback facilitating smooth playback transitions across multiple machines
- Incremental play begins playback of the next track every time the play key is pressed or will enter Auto Ready mode if the stop key is pressed
- End Of Message indicator lights when nearing the end of a track and is settable from 5 to 35 seconds
- Back-up memory retains the operating status of the repeat, single and increment play, display mode, auto cue and search functions
- 2U rackmountable

Outputs

- RCA unbalanced analog outputs
- S/PDIF digital output
- Tally jack for connecting LEDs for monitoring the operating status of the deck
- Remote control output
- Optional LA-450 Balancing Kit gives you XLR balanced analog outputs with 12dB maximum trim control and AES/EBU digital output.

CD-305

Industrial 5-Disc CD Player

With multi disc capability, the CD-305 is the perfect solution for applications that require long continuous playback or quick access to multiple discs. Ideal for use in commercial sound installations or production environments. A fully programmable, great sounding CD player, the CD-305 also features balanced XLR and S/PDIF digital outputs.

- Rotating carousel accommodates up to five CDs and is solidly built with a robust transport mechanism.
- XLR-balanced and RCA unbalanced analog outputs as well as coaxial S/PDIF digital output for compatibility with professional and consumer-type equipment
- 3-beam laser tracking system and CIRC error protection circuitry ensures exact reproduction of the original CD.
- Bypass any disc in the tray (disk skip), you can also remove any unused disc while another disc is playing.
- Easy to read fluorescent display
- Programmable (up to 32 tracks), random and repeat playback modes
- Switchable 120-230v operation
- Rack-mountable
- Includes wireless remote control with 10-key pad for direct track number access

CD-A500/CD-A700

CD/Cassette Combo Decks

The CD-A500 and CD-A700 offer the advantage of a multi-purpose integrated combo deck while still delivering the required features for an individual cassette deck or CD player. Features like CD to tape synchro dubbing and continuous play features make them ideal for installation and production environments, and because their made by Tascam, you can count on their ruggedness and reliability.

Combo Features

- Combination CD player and auto reverse cassette deck
- Continuous play from CD-to-tape and tape-to-CD for long playback in background music installations
- Separate CD and tape function displays
- Includes RC-A500 IR remote control

CD Player Features

- Shuffle for playback of tracks in random order. Also has a 3-way repeat function
- Memory programming allows you to program the CD to playback tracks in any order you like. Taken a step further, the A Side/B Side program dubbing feature allows monitoring the accumulated time of programmed material for even distribution to both sides of a cassette.

Cassette Deck Features

- 15-program music search
- Dolby B and C noise reduction
- ±10% Pitch control ensures proper playback of program material.
- CD Sync recording allows one touch CD to cassette recording. Once the cassette is set to record, the CD player will start
- Auto reverse mode allows continuous looping of both sides of a tape, play the tape once through or play one side only
- Record mute button inserts 4 seconds of blank space in between program material.
- Two directional play buttons allow you to choose which side of a tape to play/record instantly.
- 50Hz to 15kHz frequency response ±3dB using chrome tape

CD-A500.....**329.95**

Inputs/Outputs

- CD outputs can be shared as a common out for CD and cassette.
- Headphone output with level control
- Independent RCA stereo outputs for CD and cassette functions and stereo RCA inputs for cassette deck.

CD-A700 Step Up Features

- Parallel control port
- S/PDIF digital output from CD player
- Independent pitch adjustment (±12%) for both CD and cassette
- XLR-balanced and RCA unbalanced outputs common for both cassette deck and CD player as well as XLR balanced and RCA unbalanced outputs dedicated to the CD player.

CD-A700.....**439.95**

PMD-320/PMD-321

Industrial CD Players

The PMD-320 and 321 offer professionals basic, user friendly local and remote control and cueing capabilities. Installations and production facilities who need precise control of CD audio will find features like fader start, pitch control and the Marantz RC-5 remote interface indispensable. RCA analog and digital S/PDIF outputs are provided for interfacing with today's audio gear while the PMD-321 adds XLR-balanced analog and balanced S/PDIF outputs for even greater flexibility.

FEATURES

- Dynamic range greater than 96dB
- 5Hz - 20kHz frequency response
- Transport buttons include; Play, Pause, Track previous/next. Has high speed audible cue and review.
- The Stop/CM button (PMD320 only) stops playback or deletes a program.
- 10 digit key pad (0 - 9) for direct track access up to 99 tracks and selecting tracks in program mode.
- Cal button is used to calibrate and return the CD player to normal pitch.
- Repeat button selects either 1-track repeat, all-track repeat or program mode repeat.
- ±12% pitch in increments of 0.1%.
- Fluorescent display indicates power on/off, current track number being played or programmed, play/pause mode, repeat mode, program mode and time reference.
- Up to 30 tracks to be programmed for playback in any order. As tracks are being programmed, the time display calculates the total accumulated program time of the selected programs.
- Track number indicators display the remaining track numbers not yet played on a disc or that have been selected in program mode.
- Time button switches the displayed time between elapsed time and time remaining of current track, total length of disc and time remaining on disc.
- Optional wired (WRC200 MKII) and infra-red (RC5PMDSW) remote controls
- One piece 2U rackmount chassis

Outputs

- Unbalanced RCA outputs
- Coaxial (RCA) digital output
- 1/4″ stereo headphone output
- Marantz RC-5 remote input and output
- AMX and Crestron compatible
- Fader start trigger input enables playback and pause to be controlled by an external switch or fader from a mixing desk.

PMD321 Step-Up Features

- Audio cue skips the silent subcode data at the beginning of a track, and pauses the disc right at the start, of the audio program, allowing instant start.
- Balanced XLR outputs with independent analog output level control
- XLR digital output (S/PDIF)

PMD-320.....**239.95**

PMD-321.....**319.95**

CDR-640 *Standalone CD Recorder*

Marantz' flagship CD recorder benefits from 10 years of CD-R experience. Designed without compromise and aided by the feedback of professional end-users, the CDR-640 ensures maximum flexibility and stability in the most rigorous studio environments.

- Balanced XLR Analog In/Out
- Analog RCA/Phono In/Out
- AES/EBU and S/PDIF In/Out
- Records on CDR and CDRW audio and data disks
- High resolution 20-bit Sigma/Delta AD conversion
- Full SCMS Copy bit manipulation
- 0.5 dB accurate level metering
- Built-in 1MB RAM buffer provides variable audio delay (0-4 sec): offset your audio to compensate for late track ID's
- Preset function stores personal settings
- Optional RC640 Wired remote control

PMD-350

CD/Cassette Combo Deck

Marantz combines the strongest attributes of their CD player and cassette recorder/reproducer technology in the 3RU PMD-350 combo deck. Designed to offer maximum flexibility for everything from mastering and dubbing applications to broadcast, installation and DJ rigs, the PMD-350 is equally competent as an independent CD player and tape deck, as it is an integrated combo deck.

FEATURES

CD Features

- Cue to music feature skips initial sub-code information of a track and pauses right where audio begins, allowing instant start of program material.
- Dual memory points (A-B) rehearse function loops audio between any two points in a track.
- Time button toggles the CD display to show elapsed time of current track, time remaining of the current track or total time remaining on the current disc.
- Program play allows up to 20 tracks to be played back in any order.
- Repeat function will repeat all tracks on the disc or in the current program list.

Cassette Deck Features

- Optically sensing quick auto-reverse detects tape leader and changes the tapes direction allowing continuous, uninterrupted playback or recording.
- Defeatable automatic level control (ALC) as well as manual level control with a recessed left/right record balance control
- Dolby B and C noise reduction, reduces hiss from 10 to 20dB.
- Dolby HX Pro extends the headroom of higher frequencies by monitoring and instantly compensating for over biasing.
- Memo button stores a specific point on tape allowing you to FF or REW to that point from anywhere on tape.
- Automatic tape type selector sets the bias and equalizer levels for the tape (Normal, Chrome, Metal) you are using.

Rear Panel

- Separate and mixed RCA tape and CD outputs
- Left and right 1/4″ high impedance microphone inputs
- Coaxial digital output conforms to the consumer IEC958 Type II protocol.
- Multiple Marantz decks (equipped with RCA-EXT cascade connector) can be looped together for extended playback or recording. When the first deck completes both sides of a tape, the next deck starts.
- MPX Filter switch eliminates sub and ultra sonic frequencies transmitted during FM broadcasts that can interfere with Dolby noise reduction operation.
- Independent fader start jacks - when receiving a dry switch contact closure the CD will switch between Play/Pause and Play mode and the tape deck between play and stop mode
- Marantz RC-5 Remote I/O allows basic remote control for a single unit or synchronized control of multiple units.

Front Panel Functions

- One-Touch Automatic Dubbing (from CD to cassette) function scans the CD to find the peak level, sets the optimum recording level using the Automatic Level (ALC) Control and commences recording.
- Multi function display indicates the operating status of the main functions for both the CD and cassette deck.
- Large transport buttons with LED inset
- Separate ±12% pitch controls for tape and CD
- Headphone output with source selector switch; CD, Tape or Mix

Other Features

- One-piece 3U rackmount chassis
- Optional balanced XLR kit (XLR350PMD)
- Optional wired or infra-red controls
- AMX and Crestron compatible

PMD-350. .....**549.95**

PMD-370 *5-Disc Rotary CD Changer*

An exceptionally versatile and durable 5-disc CD changer, the PMD-370 offers a wide range of programming options as well as a full featured remote control that provides direct track and index number access— ideal for installations and production environments.

- Analog RCA outputs
- Full programming and program editing, random play, single or multiple track repeat
- Change Discs While Playing
- Audible Cue and Review
- Automatic Music Search (Intro Scan)
- Marantz RC-5 Remote Input/Output AMX and Crestron Compatible
- Removable 3U Rackmount Handles

PMD-370.....**324.95**

CDP-D500

Professional CD Player with Jog/Shuttle

A workhorse CD player, the CDP-D500 has a wide range of programming capabilities and play modes not to mention excellent sound quality. It features balanced and unbalanced line outputs, S/PDIF digital out, shuffle, repeat and program modes as well as adjustable fade-in/fade-outs and sophisticated cueing functions.

Front Panel

- Cue to either track or index number
- Direct track access on front panel
- Auto fade-in/fade-out is adjustable from 1 to 9 seconds
- Auto Cue function pauses a track exactly where audio begins for rapid start
- Cue Standby brings you to the start position of the current track, ready for instant start.
- Auto Pause automatically pauses at the beginning of the next track when the current track finishes.
- Program Play allows playback of up to 24 tracks in any order.
- A-B Repeat button enables you to specify a portion of audio to loop repeatedly
- Headphone output with level control
- Timer Playback supported when used with an external timing device
- Jog shuttle dial for CD frame accurate cueing and data entry
- ±12.5% pitch control in 0.1% steps
- Compatible with the CD-TEXT format.
- Time/Speed button allows you to toggle through various display functions including; elapsed time and current track number, remaining time on the current track, remaining time on disc, elapsed time of current track including frame number
- A rehearsal function loops a specified section of audio and the Jog dial can be used to adjust and locate precise, frame accurate Cue Points. Repeated audio can be set to loop from 1 to 9 seconds and the starting point shift increment is settable between 1 and 74 frames.

Menu Options

- Key Protect makes all controls ineffective except for Eject, Stop, Enter and Clear
- Remote Protect makes supplied wireless remote commander ineffective
- Auto Cue threshold level has 5 detectable level settings (-72/-66/-60/-54/-48dB) with a default level of -60dB
- Last Mode Memory stores current play mode, repeat mode fade time playback speed and menu settings when player is turned off.

Repeat Play Modes

- Repeat Play works in any play mode; Continuous Play repeats all tracks, Shuffle Play repeats tracks in random order, Program Play repeats current track, Delete Play repeats remaining tracks, Delete Shuffle Play repeats remaining tracks in random order. All repeat modes are accessible from the wireless remote control.

Outputs

- XLR-balanced and RCA unbalanced line outputs
- XLR-balanced AES/EBU and coaxial (RCA) S/PDIF digital outputs
- Clock frequency can be controlled externally (via BNC) ensuring glitch free, sample accurate transfer of digital audio
- RS-232C serial port for machine control from a computer or workstation, and for uploading of CD-Text
- 8-pin parallel remote input supports fade in and fade out commands when used with fader start control systems.

CDP-D500.....**1149.95**

DENON DN-C630 *Industrial CD Player*

An affordable CD player with an amazing feature set, the DN-C630 is equipped to take on the most demanding broadcast, DJ, production or installation applications. Proprietary Super Linear Converter with 18-bit, 8x oversampling digital filter prevents left/right timing errors and zero cross distortion. Three customizable presets allow you to store over 25 of the DN-C630's functions, and can be recalled instantly. Balanced and unbalanced line outs as well as a coaxial digital out will get you connected while the easy to read, large flourescent display will keep you on top of the multiple programming functions and transport status .

CD-RW5000

Standalone CD Recorder

An extremely flexible CD-recorder, the CD-RW5000 accepts CD-R (Recordable) and CD-RW (Re-writable) discs in both consumer and professional versions. An expansive analog and digital I/O section provides a way to hook up just about any mixer or other two-track device for mixdown, transfer, or duplication. Supplied wired remote control means you don't have to leave the sweet spot during mixdown.

Digital Recording

- When recording via S/PDIF, track divisions known as PQ codes (CD) and Start IDs (DAT) will be encoded on the disc.
- When recording from a digital source, a built-in sample rate converter converts material recorded at 32 or 48 kHz sampling rate to the standard 44.1kHz sampling rate.
- Synchronized start can allow all tracks or only one track to be recorded. When recording via the coaxial or optical S/PDIF inputs, begins recording when the start of a track is recognized. When using the AES/EBU digital input, begins recording when the track level goes above -36dB.

Disc Management

- The OPC (optimal power calibration) mode calibrates the unit to the characteristics of a newly inserted disc.
- Until the table of contents (TOC) is written on to the CD-R or CD-RW disc (known as finalizing), the audio cannot be read by an ordinary CD player.
- An entire CD-R/CD-RW disc or track can be erased as long as the disc has not been finalized. A CD-RW disc can be completely erased and re-used after being finalized
- Track divisions (numbers) can be manually inserted on a CD after audio recording.

Inputs/Outputs

- +4dB balanced XLR as well as unbalanced RCA analog inputs and outputs
- AES/EBU digital input as well as coaxial (RCA)and optical S/PDIF digital I/O
- Headphone out with level control

Additional features

- 15-pin parallel control port
- Repeat Play and Program Play
- Supplied with wired remote control

CD-RW5000.....**699.95**

HHB

CDR-850 *Professional CD Recorder*

The CDR-850 is one of the most comprehensive CD-R, CD-RW disc recorders available today. Outstanding sound quality and a complete range of analog and digital I/O combined with easy to use one-touch recording modes make the CDR-850 suitable for any audio environment.

Five Recording Modes

- Automatic digital source synchro recording (1-track). When the source deck starts to play, one track is recorded, recording then stops at the end of the track. Ideal for compilation recording from various sources, CD, DAT or MD.
- Automatic digital source synchro recording (all-track) When the source deck starts to play, all tracks are recorded and recording stops after the last track.
- Automatic finalization recording mode finalizes the disc after an all-track automatic digital source synchro recording.
- Manual digital source recording recording mode is used for recording from digital sources when manual control of the recording is required. Recording is started and stopped manually.
- Analog-source recording mode is used for recording the line output of the source.

Inputs/Outputs

- Balanced XLR analog I/O, unbalanced (RCA) phono analog I/O, AES/EBU digital input, coaxial & optical S/PDIF digital I/O
- 8-pin parallel control interface

Additional Features

- All functions are front panel accessible
- Sample rate converter accepts any digital signal from 32 to 48 kHz including varispeed (pitched) signals
- Copies all CD, DAT, MD, DVD and DCC track starts
- SCMS management can create discs that cannot be copied, copied once or are not copy prohibited.
- Includes full function IR remote control

CDR-850.....**Call**

TC-D5PRO II

Stereo Cassette Recorder

A perfect blend of Sony's hi-fi technology and miniaturization mastery – the TC-D5 PROII provides stable, high performance stereo recording with complete lightweight portability in rigorous field use. Measuring 9 5/8″ x 11 5/16″ x 6 5/8″ and weighing a mere 3 3/4 lbs, including batteries, it lets you slip onto the scene easily and come back with stereo sound of proven Sony quality. Provided with XLR-balanced connectors, it also allows direct interface with professional microphones.

Basics

- Stereo low impedance XLR mic inputs
- Stereo RCA line outputs
- Dolby B noise reduction
- Built-in speaker and stereo 1/4″ headphone jack let you check your recordings immediately.
- The record-level limiter eliminates clipping, whereas the microphone attenuator suppresses excess input signal levels by 20dB to prevent distortion.
- Approx. 5-1/2 hours of operation are possible with two "D" size alkaline batteries. Also connects to a car battery via a car battery cord.

VU-Metering

- Large, easy-to-read VU meters are also backlit with a memory. One switch illuminates the VU meters and at the same time indicates the battery condition on the L-channel meter. Light shuts off after 10 seconds to save batteries. The LED peak indicator illuminates at +7 dB.

Disc-Drive System

- Featuring a coreless design, the motor is as small as an "AA" size battery but delivers strong torque. The excellence of this transport mechanism not only results in increased accuracy and stability but also contributes greatly to the exceptional compactness of the TC-D5 PRO II.

Specifications

Freq. Response (CrO2): 40Hz–15kHz

Winding Time: 150 sec. with C60 cassette

Headphones: Stereo phone jack x 1

Speaker: 5cm (2″) dia., 200mW

Power Requirements:
Two "D" size batteries
DC-12v car battery with DCC-127A cord

Dimensions: (W x H x D)
9-5/8″x 11-5/16″ x 6-5/8″)

Weight: 3 lb 12 oz with batteries

Supplied Accessories:
Carrying case and shoulder strap

TC-D5PRO II.....949.95

TCW-R565RM *Cassette Recorder*

A dual well cassette deck with 2 speed dubbing, wide range pitch control and easy to use, CD player like track access. The TCW-R565RM handles your basic duplication, mixdown and installation requirements with ease.

- Dual well cassette deck with autoreverse
- Deck A playback only, Deck B playback and record
- Standard RCA inputs and output
- High speed and real time dubbing
- Headphone output
- Dual 2 motor transports provides stable performance
- Auto Calibration automatically adjusts bias levels and tape sensitivity to match tape formulation.
- Dolby B/C noise reduction and HX Pro headroom extension circuitry ensure high quality recordings without unwanted noise and hiss.
- ±30% pitch control for master deck (A)
- Multi-AMS included on both decks helps you find the song you want easily (up to 30 tracks).
- RMS function offers programmed playback of up to 28 tracks (14 per side) in any order on Deck A. When this function is in use, the level meter functions as a music calendar displaying programmed track numbers.
- 2-speed (3x/25x) Cue/Review
- Record mute inserts 4 seconds of silence between tracks.
- Supplied rack mount adapter

PMD-101/201/221/222/430

Portable Professional Cassette Recorders

The world standard for field recording, the PMD line is also the value leader. They all feature RCA line input/outputs, 1/4-inch headphone jack, built-in speaker, pause control, audible cue and review, tape counter, full auto shut-off and low battery indicator. Used professionally by journalists, law enforcement agencies, aural historians and musicians.

- All models except the PMD-430 have 1/2 speed playback/record capability. With 1/2 speed playback, musicians can slow down complicated passages for analysis. And when played back at 1/2 speed, the pitch is lowered by exactly one octave, so the notes are still musically correct—ideal for figuring out complicated solos or picking patterns.
- Three standard 'D' cell batteries provide up to 7-1/2 hours of operation and the optional RB430 rechargeable battery delivers up to 5-1/2 hours.
- By recording at 1/2 speed, a three hour meeting can be recorded on a single tape. A built-in microphone and automatic level control make operation simple, and built-in speaker makes transcription convenient.
- 1/2 speed recording is equally ideal for churches, because 90 minutes can be recorded on a single side of tape—no interrupting your recording to flip the tape over. Line inputs make it easy to use and connect to your existing sound system.

General	PMD-101	PMD-201	PMD-221	PMD-222	PMD-430
Stereo/Mono	Mono	Mono	Mono	Mono	Stereo
Heads	2	2	3	3	3
Inputs/Outputs					
Mic Input	1/4-inch	Miniplug	Miniplug	Mini/XLR	1/4-inch
Condenser Mic	Built-In	Built-In	Built-In	Built-In	—
Remote Jack	—	Yes	Yes	Yes	—
Modular Tel. Jack	—	Yes	Yes	Yes	—
External Speaker Jack	—	Yes	Yes	Yes	—
Record Controls					
VU Meters	—	1	1	1	2 (Illuminated)
2-Speed Recording	Yes	Yes	Yes	Yes	—
Dolby B NR	—	—	—	—	Yes
dbx NR	—	—	—	—	Yes
Mic Attenuation	—	0,-10dB, -20dB	0,-10dB, -20dB	0,-10dB, -20dB	0,-15dB, -30dB
Ambient Noise Cont.	—	Yes	Yes	Yes	
MPX Filter	—	—	—	—	Yes
Manual Level Control	—	Yes	Yes	Yes	—
Limiter	—	Yes	Yes	Yes	Yes
ALC	Yes	Yes	Yes	Yes	—
Peak Indicator	—	—	Yes	Yes	—
Playback Controls					
Pitch Control	±20%	±20%	±20%	±20%	±6%
Bias Fine Adj.	—	—	—	—	Yes
Tone Control	Yes	Yes	Yes	Yes	—
Half-Speed Playback	Yes	Yes	Yes	Yes	—
Memory Rewind	—	—	Yes	Yes	Yes
Price	**199.95**	**279.95**	**319.95**	**339.95**	**459.95**

102MKII

Single-Well Stereo Cassette Deck

When mixing your music down to cassette, the 102MKII ensures that the same sound quality you've crafted in the studio comes through to the master tape. It features 60dB S/N ratio with an extremely wide frequency response for high-fidelity sound reproduction—using any type of cassette tape. A three space rackmount design (rack ears included) makes it easy to integrate into any studio setup. So whether you're a musician, systems contractor or a studio operator looking for a high-quality cassette recorder at an attractive price —look no further.

130 *Single-Well 3-Head Stereo Cassette Deck*

The 130 is a 3RU high, 3-head cassette recorder that puts unprecedented value into your studio. Ruggedly constructed, the 130 virtually guarantees pristine recording and playback results with years of dependable operation and uncompromising sound. Features like pitch control, return to zero (RTZ) function and auto tape select give you the extras you need, so you can work quickly and confidently.

They All Feature

- Left and Right balance control and master record level control
- Dolby B/C noise reduction and Dolby HX PRO Headroom Extension extend high frequency performance up to 6 dB and minimize distortion.
- HX Pro improves recording quality at high frequencies without increasing noise or distortion. Dolby HX Pro requires no decoding and therefore benefits any tape, regardless of the playback deck
- Bias Fine Tuning lets you customize high frequency response
- Advanced bias-sensing electronics automatically chooses optimal settings for any type of tape — Normal, Metal or Cr02.
- Search function enables you to find the track you want by scanning (up to 20 tracks) in forward or reverse at high speed until 4 seconds or more of blank tape is detected, then enters play mode. Intro Check (not on the 302) gives you a brief 15 second preview of each selection before advancing to the next track.
- Multi-Counter with both tape counter and run-time modes
- Record/Mute autospacer automatically inserts 4 seconds of silence between tracks.
- Multi function display indicates transport mode, tape counter position, Dolby system, tape type and peak level metering.
- Headphone output
- Standard RCA type connections
- 3.5mm CD/ Synchro-Dub jack
- Legendary Tascam designs makes them resilient and tough as well as accurate in sound reproduction.

202MKIII *Dual-Well Dual Auto Reverse Cassette Deck*

The 202MKIII is a dual-deck for studio applications as well as multi-purpose recording and dubbing. It features sync reverse and dubbing capabilities that rival much more expensive decks. Durable rack-mount housing makes it tough and reliable. Computerized program search, Dolby B and C noise reduction and Dolby HX Pro ensure efficient professional results and excellent sonic performance. In addition to dual-deck functionality, high impedance mic inputs and RCA line inputs and outputs make the 202MKIII a flexible all in one recording/dubbing machine. Ideal for recording lectures, sermons, or business meetings, or for extended playback in contractor installations.

302 *Independent Dual-Well Auto Reverse Cassette Deck*

In applications where long-capture, continuous or long playback is essential, nothing doubles your performance better than the 302. Two fully independent cassette decks housed in a 3U rack-mountable enclosure, the 302 elegantly adds a suite of dubbing and duplicating features to your arsenal. Professional and project studios, musicians and contractors will appreciate the powerful dubbing features that make fast dubbing as effortless as pressing a few buttons.

130 *All the Features of the 102MKII, PLUS—*

- 3-heads provide confidence monitoring so you know exactly what is being recorded.
- Auto Monitor function allows signal monitoring to match the play/record status of the deck. During playback, tape is monitored. In Rec/Pause, input source is monitored. Record mode monitors off-tape.
- MPX filter eliminates pilot tones during FM broadcasts that can interfere with Dolby noise reduction.
- ±10% pitch control assures accurate playback speed of cassettes recorded on other decks. Makes matching pitch with other instruments a snap.
- RTZ (Return-To-Zero) fast winds the tape to the tape counters zero reference point.
- Timer record/playback capability
- Voltage selector for 120/220v operation
- Headphone output with level control

202MKIII *All of the Features of the 102MKII in a Dual Deck Design*

- Dual two-head cassette decks can be used separately or in tandem during recording and playback.

— Play deck 1 while deck 2 records in dubbing mode using either real time, 1-7/8 IPS or 3-3/4 IPS high speed dubbing.

— Record simultaneously on both decks from an external master in Parallel Mode.

— Continuous mode lets you play/record both sides of Tape 1 and 2, in sequence and repeat up to 5 times.

— Rev Mode determines when play/record stops, at the end of one side of a tape, after both sides of a tape are played, after both sides of both tapes are played or recorded.

- Teac compatible CD Synchro Dub jack
- Auto Reverse function reverses tape direction during playback and record.
- Synchro Reverse dub reverses the playback and record deck at the same time. Ideal when using different cassette lengths.
- Blank Scan skips long portions of tape (10 seconds or more) and FF to the next section of audio (202MKIII only)
- Infinite looping during playback.
- Pre-program playback or recording, when used with a standard commercial timer.
- Independent L/R stereo LED meters
- Dual RCA inputs and outputs
- Dual high impedance 1/4″ mic inputs on front panel allow live stereo recording

302

Same as 202MKIII, PLUS—

- Independent dual well cassette deck with separate RCA inputs and outputs, transport functions, level controls and metering for each deck.
- RCA line inputs and outputs for deck 1 can be used as common I/O for both decks
- ±10% pitch control
- RTZ (Return-To-Zero) fastwinds the tape to the zero reference point. You can press play or pause after RTZ to begin playback or enter play ready mode after zero search is complete.
- Headphone output with level control and source selector (Deck 1, 2 or mix)
- Optional RC-302 remote offers complete control over all front-end features on both decks.
- Up to ten 302s can be connected in series via the stereo RCA cascade outputs and 3.5mm external control I/O allowing:

— Sequential playback of multiple cassettes

— High speed simultaneous dubbing to multiple cassettes

— Recording an external source to multiple cassettes simultaneously

— Record separate sources to multiple cassettes simultaneously

SPECIFICATIONS	102MKII	130	202MKIII	302
Frequency Response:				
Metal	25Hz to 20kHz	15Hz to 21kHz	25Hz to 19kHz	25Hz to 20kHz
CrO2	25Hz to 18kHz	15Hz to 20kHz	25Hz to 18kHz	25Hz to 19kHz
Normal	25Hz to 17kHz	15Hz to 18kHz	25Hz to 16kHz	25Hz to 18kHz
S/N Noise Ratio:				
NR Off	60dB	58dB	59dB	59dB
Dolby-B IN, 5kHz	70dB	70dB	68dB	69dB
Dolby-C IN, 1kHz	80dB	80dB	78dB	79dB
Price	**269.95**	**376.95**	**399.95**	**527.95**

MASTER CASSETTE DECKS

When audio professionals have needed high quality, reliable tape decks, they have always been able to turn to Tascam. Tascam's latest offerings continue that tradition of excellence and can meet the demands of the most critical audio and video production facilities. Whether you need the top notch performance of the 3-head 122MKIII or the convenience of the auto reverse 112RMKII, Tascam has a deck to meet your requirements.

112MKII *2 Head Stereo Cassette Deck*

The Tascam 112mkII Cassette Deck is a classic. This production "workhorse" is known throughout the industry for its outstanding performance, stability, and reliability in a wide range of applications. Ideal for production mastering and mixdown, the 112mkII features a parallel port for external control and with the addition of Tascam's optional LA112 balanced connector kit, it is flexible enough to integrate into any studio.

112RMKII *Auto Reverse Cassette Deck*

The 112RMKII provides exceptional playback for engineers and contractors. Auto reverse and a 3-head design that allows off tape record monitoring as well as an array of professional features make the 112RMKII a step above the rest. As with all three of these professional cassette decks, the 112RMKII features a parallel port, Dolby B&C noise reduction with HX Pro, an advanced Servo control system and more. Three heads are better than two and the 112RMKII is a smart choice.

122MKIII *3-Head Stereo Cassette Deck*

This is Tascam's top-of-the-line cassette deck, the industry standard for production and broadcast facilities. It has all of the features you could ask for including balanced and unbalanced ins and outs, gear and clutched input level controls precision servo direct-drive capstan motors even a built-in oscillator adjustment signal with front panel bias and level calibration controls. If you are looking for the best in cassette recorders, the Tascam 122mkIII is a hard one to beat.

THEY ALL FEATURE

Flexible Monitoring

- Input mode selects the input signal to be monitored at all times.
- Automatically selects the input signal to be monitored in Rec/Rec Pause modes or tape to be monitored in play mode. The 112RMKII and 122MKIII also allow off tape monitoring in record mode.

Auto Locator Functions

- LOC 1 and LOC 2 buttons each store a locate point giving you one button access to any two points on a tape.
- Repeat button allows looping between two points with one-touch convenience.
- Return-to-Zero (RTZ) quickly rewinds the tape back to 0000

Additional Features

- Precision VU meters with peak LEDs
- ± 12% pitch control.
- Front-panel 1/4″ phone jack line inputs take priority over the rear-panel inputs.
- Rec mute with auto spacer function.
- Headphone jack with level control
- Dolby B and C noise reduction
- MPX filter removes 19Hz and 38kHz tones used in FM broadcasts that can interfere with Dolby B and C operation
- Dolby HX Pro headroom extension system (A record-only process that can be heard on any cassette deck) achieves up to 6 dB greater headroom at the higher music frequencies.

Inputs/Outputs

- 25-pin parallel ports provides external control of transport functions when used with the optional RC-134 Remote Control (122MKIII and 112MKII), or RC-112R (112RMKII)
- The 112RMKII and 112MKII have unbalanced lines and can be upgraded for balanced operation with the optional LA-112 expansion kit

112 MKII.....**629.95**

112R MKII **849.95**

122 MKIII **999.95**

AMERICAN EXPRESS Cards VISA MasterCard DISCOVER

MASTER CASSETTE DECKS

112RMKII
Same as the 112MKII plus—

- Auto Reverse has two modes; one-time mode plays both sides of a tape once, while continuous reverse mode plays both sides of a tape in a continuous loop.
- Tape-end tally signal, which allows coordinated multi-deck operation for continuous recording or playback with two or more decks connected in a chain.
- Compumatic Program Search allows you to transport directly to the beginning of a track by sensing 4 seconds of blank space in between 2 tracks.
- Direction button switches tape to other side for playback or recording

122MKIII
Same as the 112MKII plus—

- Three-head transport with separate high-performance record and playback head.
- Equipped with +4 dBm balanced XLR input and output connectors as well as -10 dBv unbalanced RCA input and output connectors, ensuring compatibility with all types of recording equipment.
- Precision FG servo direct-drive capstan motors, combine to provide the highest standards of reproduction quality and performance.
- Built-in 400Hz/10kHz calibration oscillator and front-panel record level and bias trimmers can be used to fine-tune the 122MKIII for optimum performance with any type of tape. Both bias and level are independently adjustable for the left and right channels.
- Hysteresis Tension Servo Control (HTSC) system virtually eliminates wow and flutter by maintaining consistent back tension on the tape all through the reel, combatting inconsistencies brought on by tape shift and extreme temperatures and humidity.

SPECIFICATIONS	112MKII	112RMKII	122MKIII
Frequency Response:			
Metal	25Hz to 19kHz	25Hz to 19kHz	25Hz to 20kHz
CrO2	25Hz to 18kHz	25Hz to 18kHz	25Hz to 19kHz
Normal	25Hz to 17kHz	25Hz to 17kHz	25Hz to 17kHz
S/N Noise Ratio:			
NR Off	59dB	60dB	60dB
Dolby-B IN, 5kHzz	68dB	70dB	70dB
Dolby-C IN, 1kHz	78dB	80dB	80dB
Price	**629.95**	**849.95**	**999.95**

T3000 *High Speed Cassette Duplicator*

A must have in any studio or house of worship requiring high quality cassette duplication, the T-3000 provides 4x double sided duplication (effectively 8x duplication) of two cassettes within a single unit. For larger duplication setups, up to ten T-3000s can be slaved together .

- 1-to-3 high speed cassette duplicator
- 4-track/4-channel, ferrite record/play head and a 1/2 track/2 channel inline, ferrite erase head.
- Auto switchable between Normal Type I and CrO2 Type II tapes.
- Duplicating speed is 7.5 ips or 4x speed duplication of both sides, simultaneously copying a C-60 cassette in 7.5 minutes.
- Tape speed accuracy of ± 1 %
- Up to ten T-3000s can be cascaded for larger duplication setups
- Well-3 can act as master or slave in larger duplication set-up
- Rugged design with easy access to mechanisms for cleaning and demagnetizing
- Uses standard RCA and MIDI plugs to connect units together.

DN-790R

3-Head Master Cassette Deck

A full-featured production workhorse with exceptional componentry, the DN-790R incorporates amorphous material in its 3-head design, thus extending the dynamic range of the higher frequencies up to 2.5dB. Automatic and manual bias controls guarantee superb sounding recordings no matter what tape you are using. XLR balanced and RCA unbalanced line inputs and outputs ensure compatibility with the widest possible range of audio gear.

- 3-heads enable direct off-tape (confidence) monitoring during recording.
- Offers Dolby S for up to 24dB of noise reduction in higher frequencies and up to 10dB in low frequencies. Also features Dolby B (up to 10dB) and Dolby C (up to 20dB) noise reduction.
- Dolby HX Pro headroom extension an encode only process significantly improves the dynamic range of higher frequencies.
- Auto Tape Type Selector detects the tape being used and automatically selects the optimum bias and equalization. Auto tuning further calibrates the bias of the deck to match the characteristics of a particular manufacturer's tapes.
- Manual Bias Fine control allows you to tailor the recording characteristics of the tape. Lower bias increases the high frequencies but may introduce distortion, more biasing decreases high frequencies but offers less distortion.
- A switchable MPX filter eliminates the sub and ultrasonic carrier frequencies used in FM broadcasts that can interfere with Dolby B and C operation
- Record Mute inserts 5 seconds of blank space in between tracks
- While in Play Mode the Blank Scan Function searches the tape at high speed until 4 seconds of blank tape is detected and playback commences.
- ±12% speed control
- Fluorescent display offers a visual representation of transport and other functions
- Linear or real time tape counter with 4 digit readout and a memory rewind to the zero mark of the counter.
- Fluorescent peak meters represent record or playback levels for each channel. Peak levels exceeding -7dB are held for 1 second.

Inputs/Outputs

- XLR-balanced and RCA unbalanced inputs and outputs.
- 1/4″ headphone output
- Jack for optional remote control

DN-770RM

Dual -Well Cassette Deck

With its dual-well design DN-770RM excels at a variety of dubbing and continuous playback applications. Also includes Dolby B and C noise reduction, independent line outputs and pitch control for each deck. Has an Auto-Standby mode that shuttles to the beginning of a tape, just past the leader, so you are ready to record.

- Three modes of normal and high speed dubbing include; single mode for one side of a tape, continuous for both sides of a tape and Relay in which the deck that reaches the end of side one first, will standby waiting for the other tape to catch up, then both decks will resume dubbing.
- Twin Recording button engages both deck A and B in the record ready mode for recording from an external source.
- Auto Reverse controls the transport allowing three modes of operation: In Single mode, decks play or record one side of a tape, in Continuous mode, both sides of a tape will play/record, and in Relay mode, playback or record will commence on deck B when deck A has completed both sides.
- Dolby B (up to 10dB) and Dolby C (up to 20dB) of noise reduction
- Blank Scan Function (same as DN-790R)
- Dolby HX Pro headroom extension (deck B only) an encode only process improves the dynamic range of higher frequencies.
- Auto Tape Type Selector detects the tape being used and automatically selects the optimum bias and equalization.
- Record Mute inserts 5 seconds of blank space in between tracks
- ±12% speed control for each deck

DN-770RM

- Linear or real time tape counter with 4 digit readout and a memory rewind to the zero mark of the counter.
- Fluorescent display offers a visual representation of current status of transports and other functions.
- When the rewind and pause buttons are pressed simultaneously, the Auto-Standby feature is engaged, automatically shuttling to the beginning of the tapes' current side and then plays back and stops just at the start of the magnetic tape allowing you to enter the playback or record mode

Inputs/Outputs

- 1/4″ headphone output
- Stereo unbalanced RCA inputs and independent stereo RCA outputs for each well
- Jack for optional remote control

DN-T620

CD/Cassette Combo Deck

While offering the flexibility of a combination CD player and cassette recorder, the DN-T620 also excels as individual component decks with features like independent pitch control, fluorescent display, and balanced and unbalanced line outputs for each deck.

CD Player Features

- ±12% pitch control
- Play modes include; single in which the player stops after the track is played or continuous where the disc plays through until the end.
- Cue button serves three functions: When pressed during playback the disc returns to its last paused position. When pressed during manual search the pause mode is set at the current position. When pressed while the disc holder is open, the disc holder closes and the pause mode is set.
- While in Single mode, the repeat switch enables the selected track to be played repeatedly, while the entire disc is played repeatedly in Continuous mode.
- A-B repeat button allows you to select any 2 points within a track to loop repeatedly.
- In Direct mode, key pad with +10 button enables direct track access. In Program mode the key pad allows up to 99-tracks to be sequenced to play back in any order.
- Random button sets tracks to play back in random order.
- Time button toggles the time display between elapsed time and time remaining of the current track.

Cassette Deck Features

- Record button doubles as a record mute inserting 4 seconds of blank space in between tracks.
- Bi-directional play buttons allow you to switch tape sides instantly.
- Dolby B noise reduction
- Auto tape type selector automatically set the bias and equalization to match tape formulation.
- Speed control of approximately ±12% allows you to adjust the pitch of a track.
- When pressed once, the counter reset/memo button returns the counter display to zero. When pressed twice, the zeroed location is set to memory so that when the rewind button is engaged, the tape shuttles to the zero position and stops.
- When in play mode you can search for the next track on a tape by depressing the play button and the fast forward simultaneously. Once engaged, the tape is scanned until 4 seconds of blank tape is detected and playback of the next track commences.
- Reverse mode switch sets the transport to play or record on one side of a tape, or in continuous mode, both sides of a tape.

Inputs/Outputs

- Mixed or separate tape and CD outputs
- Input switch selects the desired input source (external or internal CD)
- Headphone output has a level control and source selector switch determines the output signal (CD, tape or mix)
- Stereo balanced XLR and unbalanced RCA inputs with selector switch for tape deck
- Stereo balanced XLR and unbalanced RCA outputs for tape deck or CD/tape mix
- Stereo balanced XLR and unbalanced RCA outputs for CD
- Mini remote control jack

Additional Features

- Fluorescent display offers a visual representation of tape levels, transport and function status, CD track number and time/counter information.
- Optional RC-251 infra-red remote control for CD player and RC-174 remote control for tape deck.
- Standard 19″ 3RU high chassis

PMD-501/PMD-502

Single-Well Cassette Decks

Versatile and reliable, both the entry level PMD-501 and the full featured PMD-502 are workhorse cassette decks, ready for demanding everyday use in commercial recording and broadcast facilities, project studios, houses of worship and A/V rental houses. The easy to use PMD-501 has a host of intelligent features that are found across the Marantz cassette deck line including: optically sensing quick autoreverse, Dolby B noise reduction, remote capabilities, auto tape type select and more. The PMD-502 adds Dolby "C" noise reduction with HX Pro headroom extension, optional XLR balancing kit, ±15% pitch control, defeatable automatic level control and front panel microphone/auxiliary line level inputs. Of course they both offer the world-class sonic integrity that Marantz Professional audio products are famous for.

The Marantz Professional line of single and dual well cassette decks combine thoughtful engineering with uncompromising audio quality. From their entry level single well PMD-501 to the top of the line PMD-520 dual deck, they offer problem solving solutions for the most demanding mastering, dubbing and installation systems. All are housed in a 3RU high chassis and are easy to use.

- Optically sensing quick autoreverse detects leader at the end of a tape and automatically flips the tape with a minimum of audio loss or, in the case of a dual deck, will activate the second deck when the first has completed recording on both sides.
- Automatic tape type selector detects the type of tape formulation such as CrO2 or normal bias cassettes and adjusts the bias for optimum recording performance.
- Dolby B noise reduction
- Large transport control buttons with LEDs
- Recessed record balance control
- Marantz CD player equipped with RC-5 interface can control the start and stop of a PMD-series cassette deck placed in the REC/Pause mode (CD synchro recording).

Inputs/Outputs

- Unbalanced RCA inputs and outputs
- Headphone output with level control
- Marantz RC-5 remote control I/O. This remote interface also allows seamless integration of any PMD cassette deck with an AMX or Crestron control system.
- Optional wired and wireless remotes allow simultaneous control of multiple units for synchronized dubbing and other remote capabilities.
- One-piece 3RU high chassis

PMD502 Only

- Output level control
- Pitch control (±15%)
- Front panel microphone/auxiliary inputs
- Digital linear time-based counter
- Memory rewind
- Front panel input select switch
- Dolby C and HX Pro
- Fluorescent peak holding bargraph meters
- Defeatable automatic level control (ALC) overrides the manual input level control and sets the input to its optimum level.
- MPX FM filter eliminates the 19kHz pilot tone associated with FM radio signals — essential for proper Dolby B encoding.
- Optional XLR502PMD balanced-XLR kit

Accessories for PMD-Series Cassette Decks

RC-5 Infrared Remote Control

- RC-5 can control multiple cassette decks simultaneously using RCA cables connected serially in between units. Ideal for realtime duplication systems.
- Two mounting options include a 1 unit rack panel and a single gang wall plate.
- Infrared receiver can be mounted up to 30 feet away; ideal for situations where decks need to be heard and not seen such as boardrooms and houses of worship.
- Includes handheld infrared remote controller, infrared receiver and AC adapter (RCA connection cable optional).

WRC Wired Remote Control

- Hard wired rugged table top remote control for PMD series recorders and players.
- Includes 6 foot RCA to RCA patch cable to interface with RC-5 interfaces.
- Yellow and green LED indicates current control over CD or tape. Ideal for duplication systems with decks serially connected via RC-5.

XLR Balancing Kits

- Allow you to add +4dB balanced XLR inputs and outputs to the PMD-series cassette decks.
- Kits consist of rear panel assembly and ribbon cables for solderless installation.

PMD-500

Dual-Well Cassette Deck

Offering the simplicity and value of the PMD-501 in a dual-well design, the PMD-500 lets you record on both decks simultaneously from an external source, record serially, or do real-time or high speed dubbing from one well to the other. Dolby B/C and HX Pro are standard as are synchronized start and record/play timer. It also has a unique programming feature that allows up to 15 tracks to be stored and played in order.

- Continuous (serial) play or recording from deck A to deck B or deck B to deck A.
- Pressing Play button twice on either well sets the current track to loop continuously.
- Simultaneously record on deck A and B from an external source (parallel recording)
- Synchronized dubbing from deck A to deck B is possible at normal and high speed (2x). Normal and high speed programmed dubbing of up to 16 tracks in any order is also possible.
- Up to 15 tracks can be programmed to play back in any order.
- QMS (Quick Music Search) will fast wind to the beginning of the next or previous track. QMS can advance up to 15 tracks.
- AMS (Auto Music Scan) mode fast winds and plays the first ten seconds of the next track.
- While recording, Quick Rewind function automatically returns the tape to its initial record position and enter the stop mode.
- Timer/Sync capability permits recording, playback, or CD-Synchro recording when using an external audio timer.
- **No Pitch Control**

Exclusive Features

- In the Record mode, the tape counter is switched to a real time numeric peak level display. The display button, when pressed shows the highest peak level stored in memory up until that point.
- While playing, if blank passages of more 10 seconds occur while in the Blank Skip mode, fast forwards until audio is detected.
- When the record mute button is pressed during recording, the Record/Pause mode will automatically be entered after inserting 4 seconds of blank space.

PMD-510 *Independent Dual-Well Cassette Deck*

The PMD-510 takes the features and capabilities of the PMD-500 and adds discrete inputs and outputs for each well, allowing simultaneous recording from two different sources, or even record on one well while playing back on the other. A cascade function allows one well or even a dual deck to continue to record or playback where the previous well or deck left off, making the PMD-510 ideal for recording meetings and sermons, or for audio logging and surveillance. Headphone output with level control allows monitoring from source A, B, or A and B simultaneously.

Same as PMD-500 Plus—

- Independent inputs allow recording on each deck from different sources.
- Independent outputs allow simultaneous playback of a tapes in both deck A and B.
- You can record on one well while playing back on the other.
- All autoreverse functions for well switching and cascade operations are optically sensing for a minimum of audio loss during record and playback modes.
- Link several PMD-510s together in series for continuous playback or recording using the cascade (EXT) connectors.
- Each deck features independent large transport buttons with LEDs. Each deck also has level, balance, pitch and noise reduction controls as well as independent LED bargraph meters and linear (minutes and seconds) time counters.
- Optional XLR510PMD balanced-XLR kit

PMD-520

Independent Dual Well 3-Head Cassette Deck

The top-of-the-line PMD-520 has all the capabilities of the PMD-510 plus adds three uniquely distinct features. It has three stationary heads allowing direct off-tape (confidence) monitoring in realtime. This is useful for tracking master recordings and live audio capture and is an efficient way of spot checking tapes during extended duplication runs. The next two features are unique for any deck. Direct tape insertion/removal eliminates tape doors for easier access to cassettes while the tape mechanisms can be removed allowing servicing of installed decks with a minimum of fuss. The cascade recording feature is also taken to the next level by allowing a three minute overlap when recording from one well to another. The loop through outputs are perfect for large cascading multiple decks for duplicating or serial recording. Also offers a 25-pin connector for customized remote control in addition to the Marantz RC-5 interface.

Same as PMD-510 Plus—

- Stationary 3-head mechanisms in each deck provides confidence monitoring. The monitor button switches between tape and source (input) for comparison of the input versus off tape signals.
- Direct tape insertion/removal eliminates mechanical problems (no eject mechanisms or hinged doors). Makes reloading more efficient during large duplication runs.
- When cascading multiple decks for duplication, the stereo Loop-through outputs carry the input signal out to the next deck in the chain, freeing up the standard outputs for monitoring and ensuring that the input to each deck in the chain is unaffected by the previous decks electronics.
- To prevent any loss of audio during long format recording, an overlap series recording feature automatically engages the next deck cascaded in the chain 3 minutes before the current deck runs out of tape.
- To ensure optimum performance, a microcomputer controlled automatic tape calibration (Auto bias) adapts the bias, record gain, mid-frequency gain, high-frequency gain and high frequency peak of the deck to the specific tape(s) being used.
- Individual bias reset button returns the bias settings to their factory default.
- Auto rewind when the tape ends
- Recessed ±3% fine speed control
- Tape stop alarm uses a buzzer to indicate a tape has stopped playback or recording
- Removable tape mechanisms are swappable in the field with out putting the entire deck out of commission.
- 25-pin parallel control I/O has a terminal setting to control almost every parameter of the deck including, transport functions and bias control.
- Stereo LED meters with peak hold
- Tape time button selects the length of tape being used (60/90/120/10/20/30/46 minute) ensuring that the counter display will show accurate information.
- Optional XLR520PMD balanced-XLR kit

SPECIFICATIONS	PMD501/502	PMD500	PMD510	PMD520
FREQUENCY RESPONSE				
Metal (Type IV) Tape (±3dB)	20Hz–18 kHz	20Hz - 18 kHz	20Hz - 18 kHz	20Hz - 18 kHz
CrO2 (Type II) Tape(± 3dB)	20Hz–17 kHz	20Hz - 17 kHz	20Hz - 17 kHz	20Hz - 17 kHz
Normal (Type I) Tape (± 3dB)	20Hz–16 kHz	20Hz - 16 kHz	20Hz - 16 kHz	20Hz - 16 kHz
Signal To Noise				
No Noise Reduction	56dB	56dB	56dB	50dB
Dolby B	66dB	66dB	66dB	67dB
Dolby C	72dB	72dB	72dB	75dB

ACC-2000/ACC-4000

Mono and Stereo Audio Cassette Duplicators

Designed for high performance and high production, the ACC-2000/ACC-4000 series also offers easy maintenance and unsurpassed ease of use. The ACC-2000 is a two-channel monaural duplicator, the ACC-4000 is a four-channel stereo duplicator. Each produces 3 copies from a cassette master at 16x normal speed and each can expand up to 27 copy positions (with additional copy modules).With extra modules duplicate up to 27 copies of a C-60 original in less than two minutes. And they copy both sides at once. The XL Series feature "Extended Life"cassette heads for increased performance and wear characteristic as well as improvements in wow and flutter, frequency response, S/N ratio and bias. Additionally the ACC4000 XL allows for either chrome or ferric cassette duplication.

- Individual rotary level controls
- Peak reading LED indicators for quick and accurate monitoring of audio levels
- Side A or A/B select button
- Stop all tapes instantly, at any point during the copy or rewind cycle.
- Automatic or manual selection of rewind and copy operation:
- Slanted work surface and unique "heads-up" cassette platform allow less oxide build up on the heads and makes cassette loading and unloading much easier.
- Short tape indicators alert you if a tape stops or jams before the original ends
- Each cassette position has a three point tape guidance system that eliminates skew problems. Plus, when a tape is inserted, each cassette position is activated to prevent unnecessary wear and tear on the tape head mechanism.
- Audio and bias, along with head adjustments, are done from the top of the unit and a switch on the back engages the head and pinch roller for convenient cleaning.

ACC-2000 Master Mono Duplicator **1499.95**
ACC-2000 Copy Modules.....**1499.95**
ACC-2000XL Master Duplicator with XL (Extended Life) Heads **2095.00**
ACC-2000XL XL (Extended Life) Copy Modules **2095.00**

ACC-4000 Master Stereo Duplicator **2149.00**
ACC-4000 Copy Modules **2149.00**
ACC-4000XL Master Duplicator with XL (Extended Life) Heads **2795.00**
ACC-4000XL XL (Extended Life) Copy Modules **2795.00**

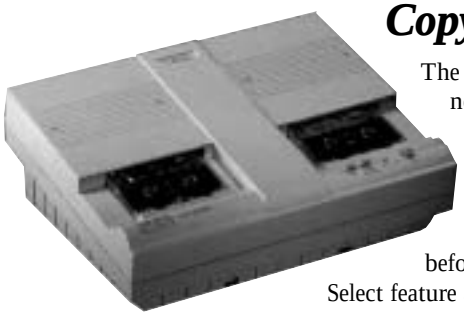
Master Duplicator Features

- Produce copies from a master at 30 ips (16x normal speed).
- Up to 27 simultaneous tape copies with optional copy modules
- Erase heads in the copy positions erase existing audio as new material is being recorded.
- Track select, short tape indicators, auto/manual operation.

Copy Module Features

- Each module has four copy positions with erase heads and controls for side select.
- Includes ribbon cables for connection to master and other copy modules.
- LED displays indicate end-of-tape status for each pocket.

Copyette EH Series Duplicators



The popular Copyette series produces high quality, low cost cassettes in large quantities at nearly 16x normal speed.This means you can reproduce both sides of a C-60 tape in less than two minutes. Available in two versions, the Copyettes are capable of duplicating either one cassette (1-2-1) or three (1-2-3) at a time. In addition each are available in both mono and stereo configurations.

They couldn't be easier to use. You simply insert the cassettes, press the START switch and they do the rest. They rewind all tapes to the beginning, copy, then rewind to the beginning again before stopping. The whole process can be stopped at any time by pressing the CYCLE button. Side Select feature allows you to set them up to copy one side of a tape or both sides at once.

Stereo Copyette 1•2•1

Weighing only 8 lbs. this unit has a durable, impact resistant housing and includes a removable power cord, carrying handle and protective cover. It also has an optical, non-reflective end-of -tape sensing system that provides gentle tape handling. A mono version is also available.

Mono Copyette 1•2•1 .....**419.95**
Stereo Copyette 1•2•1 .....**679.95**

Stereo Copyette 1•2•3

This duplicator copies both sides of three cassettes at once, yet is as small as the 1•2•1. It weighs only 12 pounds and includes a hard cover for protection when not in use. It uses all DC Servo motors for the ultimate in reliability . A mono version is also available.

Mono Copyette 1•2•3 .....**1049.95**
Stereo Copyette 1•2•3 .....**1649.95**

TCD-D8/D100/PCM-M1

Portable DAT 'Walkman' Recorders

Ultra-portable digital audio recorders that fit in the palm of your hand, the DAT Walkmans by Sony feature the same pristine CD sound quality found in high end portables and decks. They feature selectable sampling rates of 48kHz, 44.1kHz and 32kHz. Analog and digital I/O allow them to integrate seamlessly with most hard disk recorders, sound cards, digital samplers and non-linear video editing systems. Ideal for live music, sound effects and dialog recording, they deliver superb audio at an affordable price.

FEATURES

- 16-bit record mode for CD quality sound (12-bit in Long Play Mode)
- Selectable sampling rates of 48kHz, 44.1kHz and 32kHz for both analog and digital recording.
- Dynamic range over 87dB
- Digital input and output..
- 1/8″ (3.5mm) stereo mic/line input
- 1/8″ (3.5mm) stereo line output
- Long play mode for up to 4 hours of recording on a single 2 hour tape.
- Automatic and manual recording levels are switchable.
- Large backlit display with level, battery status, time & date and program info
- ID subcodes can be set either automatically or manually while recording.
- Hold switch prevents unwanted operation of transport functions.
- 100x high speed AMS (Automatic Music Sensor) search function finds and plays tracks, skips forward or back up to 99 tracks at 100 times speed.
- Automatic Volume Limiter System (AVLS) maintains volume output at levels that are below distortion threshold for cleaner sound reproduction.
- Automatic date function records the date and time for easy track identification.
- SCMS (Serial Copy Management System)

MD Report/MD Junior *DAT Recorder Docking Stations*

How can you get your portable minidisc or "Walkman" style DAT recorder to stand up to the rigors of professional field use? With the MD Report or MD Junior Docking Stations you can turn your portable consumer minidisc or DAT into a robust go anywhere field recorder. Now your Sony MZ-Rxx MiniDisc, TCD-D7/D8/D100 and PCM-M1 Dat recorders can have the same balanced mic/line inputs, phantom power, 1/4″ headphone outputs and rugged construction as the big boys.

- Robust one-piece steel chassis
- Stereo balanced mic/line inputs on Neutrik XLR connectors
- 48v phantom power
- Stereo line output on 3.5mm mini jack
- 1/4″ headphone output with level control
- Monitoring is switchable between input and tape
- Mono switch feeds a single input to L/R channels of recorder
- MD Report includes padded case with accessory pocket, the MD Junior includes a fanny pack.
- MD Report runs on supplied high capacity lead acid rechargeable battery or 4 'D' batteries. MD Junior runs on two 9v batteries.
- **MD Report only** - XLR-balanced summed mono line output, Built-in speaker mutes when using headphone; Low battery warning and battery charge status LEDs, 12v DC input for operation and battery charging, detachable shoulder strap

TCD-D100 and PCM-M1 Step-Up Features

- Smallest and lightest DAT Walkmans ever
- Built-in switchable limiter prevents digital clipping of the audio signal to tape
- Mic preamps use same components as SBM-1 Super Bit Mapping Adapter
- SCMS (Serial Copy Management System) on the PCM-M1 (only) is defeatable

DAT Walkmans and Accessories

TCD-D8 with carrying case, cleaning cassette and AC adapter **599.95**

TCD-D100 with two rechargeable batteries and battery charger, carrying case, cleaning cassette, AC adapter, headphones and remote control .....**Call**

PCM-M1 with two rechargeable batteries and charger, carrying case, cleaning cassette and AC adapter **679.95**

RMD-100K Optical/coaxial digital interface with remote control and timer **179.95**

SBM-1 Super-Bit Mapping Adapter **419.95**

MD Report Docking Station **519.95**

MD Junior Docking Station **314.95**

TCD-D10 PRO II

Professional DAT Recorder

Designed for professional recording, the TCD-D10 PRO II provides XLR balanced mic/line inputs, AES/EBU digital I/O and has a 4-motor DD (Direct Drive) transport to ensure consistent and reliable performance. Ideal for field recording, it also features a pistol grip with integrated wired remote control that allows you to mount a microphone while simultaneously controlling the transport of the machine. A built-in speaker allows playback without headphones, and a comprehensive self-diagnostic system monitors vital signs for worry-free operation.

FEATURES

- Rotary head DAT recorder using 16-bit linear quantization
- Stereo XLR balanced mic/line inputs with independent L/R level controls variable from -60dB mic level to +4dB line level.
- Available sampling rates are 48kHz, 44.1kHz and 32kHz for playback and digital recording and 48Khz for analog input.
- Built in mic limiter and 20dB pad enables you to capture audio at extremely high SPLs without causing overload or distortion.
- Stereo RCA unbalanced line output integrates the TCD-D10 PRO II into a mixer or other line level input.
- Dual independent analog to digital converters offer improved channel separation
- Precise 4-motor direct drive tape transport controls the head drum, capstan and reels individually
- AES/EBU digital I/O interface ensures compatibility with top shelf digital audio workstations, hard disk recorders, samplers and non-linear video editing systems without any audio degradation

Supplied Accessories

Includes a carrying case, shoulder belt, two NP-22H rechargeable batteries, charger, AC adapter, digital I/O connecting cable and RMT-D10P remote control.

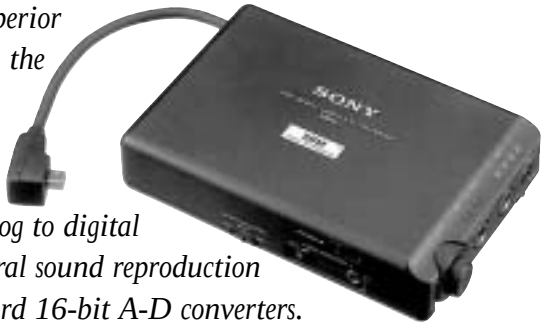
Warning Indicators

- Sophisticated self diagnostics warn of tape trouble due to problems with the head drum, capstan and reels as well as transport and load/unload time. If trouble is found, a caution indicator flashes and the tape is brought to a forced stop and if necessary will unload the tape to protect it and the machine. Also has a sensor warning for excessive moisture in the unit.

Additional Features

- The backlit LCD display is multi- functional and accurate offering 20 segment peak level metering with overload indicators, 5 segment battery indicator, absolute time, program time, time remaining and a built in calender and clock.
- Monitoring is available via 1/4″ headphone output and built-in 5cm speaker

SBM-1 *Super Bit Mapping Adapter*



An all-in-one package for superior analog and digital recording, the SBM-1 is designed for Sony's DAT and MiniDisc Walkman line of portable digital recorders. 20-bit analog to digital converters ensures more natural sound reproduction with lower noise than standard 16-bit A-D converters.

- 20-bit quantization, supporting sample rates of 48kHz, 44.1kHz and 32kHz
- Manual record level for each channel
- Line inputs via 2 x phono (RCA) jacks
- Mic inputs via stereo mini jack with plug-in power and 2 x 1/4″ phone jacks
- Connects to any compatible digital interface via standard optical and coaxial S/PDIF I/O
- Compatible with the entire line of DAT Walkman and MiniDisc recorders
- Supplied accessories include; carrying case and AC adapter

DA-P1

Portable Pro DAT Recorder

A full-featured portable DAT recorder built to handle the most rigorous field applications, the DA-P1 is also an excellent addition to any studio. It has a dual direct drive motor transport for unprecedented reliability, and it offers XLR-balanced mic/line inputs with switchable 48v phantom power for use with condenser mics. When recording from an analog source, sampling rates of 44.1 or 48 kHz can be selected. Coaxial S/PDIF (Sony Philips Digital Interface) digital I/O allows you to output directly to compatible digital equipment such as sound cards, hard disk recorders and non-linear video systems, while the digital input will automatically adjust to sample rates of 32, 44.1 and 48 kHz.

FEATURES

- Rotary 2 head configuration and dual motor transport for reliable operation.
- Built in a well-constructed hard shell, that makes ideal for field use but also at home in any studio.
- XLR balanced mic/line inputs accepts a broad range signals from -60dB to +4dB.
- RCA unbalanced line inputs and outputs for even more versatility.
- Coaxial S/PDIF I/O allows for direct digital recording and playback to and from compatible sources such as hard disk recorders, samplers, sound cards and non-linear video editing systems.
- Next-generation A-D converters allow analog recording with selectable sampling rates of 48kHz and 44.1kHz. Digital recording sampling rates of 32, 44.1 and 48 kHz are also supported.
- Independent L/R level controls
- A switchable mic limiter and 20dB pad ensures audio capture without distortion.
- A 1/4˝ stereo headphone jack with level control allows monitoring of input signals and playback.
- Easy to read backlit LCD displays input and playback levels, ABS (Absolute Time), sampling rate, program number, ID select functions and record margin.
- A hold switch prevents accidental operation of the transport functions.
- Unlike consumer portable DAT machines the DA-P1 features SCMS (Serial Copy Management System) free recording, allowing unlimited digital tape cloning.
- A long life rechargeable battery (included) gives you 2 hours of operation. Battery charges in a half hour. Also includes an AC adapter and a shoulder belt.

Optional Accessories

BP-D1 Rechargeable Battery.....**84.95**

CB-D1 Battery Charger **69.95**

CS-D1 Carrying Case **109.95**

Optional Microphones for DAT Recording Applications

AKG D230

Dynamic Handheld ENG Mic

Omni-directional ENG microphone, features high sensitivity, specially tuned frequency response, integral pop filter and a very robust metal housing.

- Extended length handle to accommodate Station ID flag
- Internal shockmount for low handling noise
- Includes SA44 mic clip and integral windscreen
- Frequency response of 40Hz to 20kHz

SONY ECM-999PR

M-S Stereo Condenser Mic

Low-cost mid-side stereo mic ideal for use with the DA-P1, the ECM-999PR features variable stereo width adjust, AA battery operation and 20 Hz to 20kHz frequency response.

- Utilizes 3 uni-directional electret condenser capsules
- Variable stereo angle 0° to 150°
- 20Hz - 20kHz frequency response
- Runs 80 hours on a AA battery
- Low-cut filter, mic attenuator
- 5-pin XLR-balanced output
- Includes a mic clip, 2.5m 5-pin XLR to dual 3-pin XLR stereo "Y" cable and wind screen

PD-4v2

Professional Portable Timecode DAT Recorder

A complete, all-in-one portable field recorder, the PD-4 v2 is so feature rich it actually rivals a studio production DAT recorder. The only portable DAT with three XLR-balanced mic/line inputs, the PD-4 also offers 4-motor, 4-head drum "anti-jam" transport, confidence monitoring, variable frame rates and sampling frequencies including 48.048kHz for digital video, and sophisticated timecode operation (including 30 drop frame and jam sync). Weighing only 6 lbs. with optional NP-1B battery, the PD-4 is ideal for the most demanding field work, whether for film, video, live music or ENG applications.

FEATURES

- Rotating 4-head drum with off-tape confidence monitoring enables you to hear what is being recorded directly off of the tape not from the input signal.
- 4-motor transport and unique "Anti-Jam" transport mechanism ensures reliability out in the field.
- 3 into 2 XLR-balanced mic/line mixer with independent gain control, -20 dB attenuation pads, 3-position (left, center, right) pan switches, 48v phantom power and high pass filter variable between 20Hz to 250Hz for each channel and a master output control.
- AES/EBU and S/PDIF digital I/O using balanced XLR connectors.
- Additional user-bit information can be recorded.
- Sampling frequencies are selectable between 44.1kHz, 48kHz and 48.048kHz (for digital video).
- A switchable stereo limiter prevents transient peaks from overloading tape.
- Choice of monitoring using 1/4″ headphone output or the built-in speaker.
- Subcode functions include PNOs (Program Numbers) and Start IDs
- Power efficient, it can operate for two hours on a single NP-1B battery. Can also be powered by a power belt or optional AD-15 AC adapter.
- 20dB attenuation pads for each channel
- Edit date in Rec/Pause or Stop Mode
- 2 distinct alert tones help differentiate between error alert signals
- Hermetic construction for extra protection against moisture
- Comprehensive illuminated display with transport direction tallies, timecode, level and subcode status.
- Panel lock feature prevents unwanted operation of the transport out in the field, like false triggering of keys when used with Portabrace cases.

Timecode

- Timecode reader/generator supports all frame rates including 24, 25, 29.97 DF, 29.97, 30 DF and 30 frames per second.
- Timecode generator has 4 modes including external run, free run, record run and 24 hour clock.
- Jam Sync is selectable for accepting external references and will output external timecode for maximum flexibility.
- Reel number editing is available in 24 hr Run Mode

PORTABRACE

Audio Recorder Cases

Organizing and protecting sensitive audio equipment from the hazards of everyday work is a tough challenge. That is why most pros choose the custom tailored, foam padded Audio Recorder Case. The flaps, clear vinyl windows and protective coverings provide access to cassettes, batteries, cables, dials and switches. The RM-Multi case is the second component to help organize the most essential accessories. It holds spare cassettes, batteries, wireless microphones, and other small items. A comfortable brown suede shoulder strap is provided.

AR-1000 For HHB PDR-1000 .....**173.50**

AR-1000TC For PDR-1000TC or PDR-1000TC Plus **173.50**

AR-222 For Marantz PMD-201, 221, 222, 420, 430.....**173.95**

AR-D5 For Sony TC-D5. .....**173.95**

AR-D10 For Sony TCD-D10 Pro.....**173.95**

AR-DAP1 For Tascam DA-P1 .....**173.95**

AR-PD4 For Fostex PD-4 (Special pocket no RM-Multi).....**193.50**

PDR1000/TC/TC Plus

PORTADATs

Designed with the help of leading location sound recordists, the PORTADAT series redefines the standard for sonic quality, performance and reliability in a portable field recorder. Whether the basic PDR-1000, the PDR-1000TC with timecode, or the PDR-1000TC Plus with master sync timecode module and headphone matrix, you are guaranteed world-class performance. They all feature 4-head, 4-motor direct drive transport, XLR mic/line inputs, S/PDIF and AES/EBU digital I/O, +48v phantom power, and are supported by a wide range of optional accessories. Best of all, they can be upgraded to the TC or TC Plus with factory authorized installation.

FEATURES

- 16-bit 48kHz sampling rate exceeds compact disc standard with a 20Hz to 22kHz frequency response (44.1kHz is also supported offering a frequency response of 20Hz to 20kHz).
- Long Play Mode (12-bit/32kHz) allows 4 hours recording on a 120 minute tape.
- 4-head design allows you to monitor off of tape while recording. This feature known as confidence monitoring is a must have for critical recording situations where there is little margin for error.
- Highly reliable transport uses 4 separate direct-drive motors to operate the drum, capstan, take-up spool and supply spool.
- 2-XLR balanced switchable mic/line inputs accept any analog audio source.
- XLR-balanced AES/EBU and coaxial (RCA) S/PDIF I/O allow direct digital transfers of audio to almost any DAW (digital audio workstation), hard disk recorder, sampler or other DAT machine.
- A switchable High Pass Filter attenuates 6dB per octave at 100Hz, removing unwanted low end rumble. A -30dB pad (attenuator) can also be set to prevent audio distortion at the input stage of the mic preamp.
- Switchable (on/off) limiter prevents transient audio peaks from distorting the signal going to tape.
- Switchable (on/off) 48v phantom power is available for use with condenser mics
- Back-lit LCD display shows clock and counter, battery status, peak level metering, margin indicator, source/tape monitor, transport status, and selected sample rate.
- Built-in monitor speaker as well as 1/4″ stereo headphone output with monitor level control.
- Built-in clock automatically time and date stamps every recording for archiving.
- Lockable record level feature prevents accidental record level adjustment.
- Powered by supplied NiMH battery or with 12v DC car battery or beltpack via the 4-pin XLR input connector (optional DCP-1000 required). Can also be AC powered with supplied AC adapter.
- The NiMH (Nickel Metal Hydride) battery has no 'memory effect' so it can be recharged to full capacity even before fully drained. Battery lasts 2 hrs and 1.5 hours with timecode operation. Supplied with RB-110 AC adapter/2-bay charger. Optional MCA1000 AC/DC powered 4-bay fast charger is available as well.
- Each PORTADAT also includes a carrying case and HHB-15 DAT tape
- A host of additional accessories are also available including the PortaBrace AR1000 carrying case, HHB's PDRCASE aluminum carrying case, additional NiMH batteries (MHB220), and the PS100 worldwide AC Adapter.

PDR-1000TC Adds

- Record, generate and reference to SMPTE/EBU timecode in all existing standards as well as jam sync and conversion of absolute time into linear timecode.
- Frame rate is selectable from 24, 25 (PAL), 29.97 DF, 29.97 NDF and 30 fps.
- Timecode can be recorded as time of day, preset for free /record run, and can be set to internal or external timecode generation. Built-in chase synchronizer allows it to slave to an incoming timecode source.
- Timecode I/O via XLR connectors. Word sync out, video/word sync input and thru, via BNC connectors.

PDR-1000TC PLUS Adds

- The most accurate timecode DAT recorder available, it includes the MS-1000 Master Sync module to ensure that drift doesn't exceed 1 frame every 10 hours.
- Lemo socket offers compatibility with Aaton film cameras.
- Facilitates pull up from 29.97 frames per second DF, to 30 fps drop.
- HM-1000 headphone matrix offers 5 selectable monitoring configurations; stereo, mono left, mono right, mono sum and mid-side stereo.
- The MS-1000 can be retrofit to any PDR-1000TC and the HM-1000 can be retrofit to any PDR-1000 or PDR-1000TC.

DAT COMPARISON CHART

	SONY				TASCAM	FOSTEX	HHB
	TCD-D8	TCD-D100	PCM-M1	TCD-D10 ProII	DA-P1	PD4-v2	PDR-1000/TC/TC+
Mic Inputs	Stereo mini jack	Stereo mini jack	Stereo mini jack	XLR x2	XLR x2	XLR x3	XLR x2
Line Inputs	Stereo mini jack	Stereo mini jack	Stereo mini jack	XLR x2	RCA x2	XLR x3	XLR x2
Outputs	Stereo mini jack	Stereo mini jack	Stereo mini jack	RCA x2	RCA x2		
Digital I/O	7-pin Optical	7-pin Optical	7-pin Optical	AES/EBU	Coaxial S/PDIF	Coaxial S/PDIF AES/EBU	Coaxial S/PDIF AES/EBU
Phantom Power	—	—	—	—	Yes	Yes	Yes
Supported Sample Rates							
Analog Record	32/44.1/48kHz	32/44.1/48kHz	32/44.1/48kHz	48kHz	44.1/48/ kHz	44.1/48/48.048 kHz	32/44.1/48kHz
Digital Record	32/44.1/48kHz	32/44.1/48kHz	32/44.1/48kHz	32/44.1/48kHz	32/44.1/48kHz	44.1/48kHz	32/44.1/48kHz
Playback	32/44.1/48kHz	32/44.1/48kHz	32/44.1/48kHz	32/44.1/48kHz	32/44.1/48kHz	44.1/48/48.048 kHz	32/44.1/48kHz
32kHz Long Record Mode	Yes	Yes	Yes	Yes	Digital Only	Yes	Yes
4 Motor Transport	—	—	—	Yes	—	Yes	Yes
Confidence Monitoring	—	—	—	—	—	Yes	Yes
Mic Pad	Yes	Yes	Yes	20dB	20dB	20dB	30dB
Low Cut Filter	—	—	—	Yes	—	Variable 20-250HZ	6db/octave @ 100Hz
Limiter	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SCMS	Yes	Yes	Defeatable	Ignored	Ignored	Ignored	Ignored
Timecode	—	—	—	—	—	Yes	TC/TC+
Battery Life	4 hrs	4 hrs with AA 2.5 hrs w/ rechargeable	4 hrs with AA 2.5 hrs w/ rechargeable	1.5 hrs	2 hrs	2 hrs	2 hrs/1.5 with timecode
Headphone Output	Stereo mini jack	Stereo mini jack	Stereo mini jack	1/4-inch	1/4-inch	1/4-inch	1/4-inch
Built-In Speaker	—	—	—	Yes	—	Yes	Yes

DAT Tapes

Maxell

R64DA 4.79
R94DA 5.39
R124DA 5.99

Sony DT Series

DT-60RA 4.39
DT-90RA 4.89
DT-120RA 5.89
Cleaning Cassette 7.49

Sony PDP Pro Series

PDP-15C 4.19
PDP-35C 5.09
PDP-48C 5.59
PDP-65C 6.29
PDP-95C 7.69
PDP-125C 8.99

Fuji

DAT-60 .....5.49
DAT-90 .....6.29
DAT-120 .....6.99

HHB

DAT-15 .....4.49
DAT-35 .....4.99
DAT-50 .....5.99
DAT-65 .....6.49
DAT-95 .....7.49
DAT-125 .....7.99

Panasonic

RTR-19M 4.49
RTR-34M 4.99
RTR-64M 5.99
RTR-94 M.....6.49
RTR-124M 7.49
Cleaning Cassette.....9.99

PCM-R300/R500/R700

DAT Recorders

The PCM-R300 is a semi-professional rackmount DAT machine well suited for the home studio and desktop video suite. Standard RCA (phono jacks) and S/PDIF digital I/O (both optical and coaxial) easily integrate the PCM-R300 into most any recording environment. Using the same Super Bit Mapping 20-bit analog to digital converters as Sony's higher-end decks gives the PCM-R300 a sonic advantage over the competition. It's as low cost and basic as a DAT recorder can be and is easy to setup and operate.

The PCM-R500 and PCM-R700 rackmount DAT recorders are evidence of Sony's 10 year commitment toward advancing digital audio technology. Designed with the professional audio and video studio in mind, they are built around the stability of 4-motor direct drive transports. A flexible number of analog and digital I/O terminals are available for connecting to almost any audio hardware. Sony's 20-bit Super Bit Mapping technology is used in the analog to digital circuitry enabling recordings rivaling near 20-bit resolution.

FEATURES

- Analog recording supports 16-bit 44.1 and 48 kHz sample rates (standard mode) and 12-bit/32kHz (Long Play Mode). Long Play Mode allows 4 hours recording on a 120-minute tape.
- Digital input recording accepts sample rates of 32, 44.1 and 48 kHz.
- RCA (Phono) line inputs and outputs
- Coaxial and Optical S/PDIF digital I/O
- Headphone output with level control
- 20-bit Super Bit Mapping analog to digital converts give you a signal to noise spec close to that of an actual 20-bit recording.
- Input monitor allows you to audition audio without engaging transports saving on wear and tear of both the tape and tape heads.
- AMS (Automatic Music Sensor) allows you to quickly and easily shuttle to any track on a tape.
- Program Number and Start, and ID subcodes can be written manually or automatically for direct track number access through the supplied remote control or AMS function.
- Counter mode display switchable between absolute time, program time, remaining time on tape, error rate and menu
- LED display shows level and margin, transport status, sample rate, input source, program number, tape running time, absolute time, playing time of the track, remaining time on the tape, date and time of recording and current date and time.
- Displays total drum operating time up to 9999 hours in 1 hour increments
- Supplied accessories include; RM-D757 wireless remote, AC power cord, rackmount adapter with mounting screws and washers.

Menu Operation

- Menu settings are stored internally and memorized after power down
- Record mute duration can be set between 0.5 to 9.5 seconds in units of 0.5 seconds. factory default is 4 seconds.
- Settable Serial Copy Management System (SCMS) allows multiple copies, one copy or no copies of a DAT tape.
- When recording digitally, start ID and skip ID detection is settable to on or off.
- Level sync threshold sets the reference input level for recognizing start IDs. Settings range from -12 to -60 dB in 1dB increments.
- The ability to recognize CD-Q codes (track numbers) when recording from a CD is settable to on or off.
- Level sync blank time sets the amount of time the audio signal must stay below the sync threshold before a new start ID is written.

PCM-R300/R500/R700

PCM-R500 Step-Up Features

- 4 Direct Drive motor transport ensures a reliable and extremely stable tape path
- Independent record level controls for left and right analog inputs
- Automatically or manually writes Program Numbers, Start Id's, Skip Id's and End Id's subcode information.
- Jog dial/Shuttle wheel - shuttle wheel allows audible cue and review ±0.5 to ±8 times normal speed (±1 to ±8 times in Long Play mode), while the jog dial is used as a data entry device for menu options and AMS (Automatic Music Search) Program Number access
- Erase start-ID and skip-ID function
- Repeat function plays a single track or entire tape continuously
- Renumbering function searches all start-Ids from the beginning of the tape and writes consecutive program numbers
- Specific absolute time locations can be temporarily stored and recalled using the Mark and Locate function. Stored locations are lost once a tape is removed or the deck is turned off.
- The rehearsal function ensures accurate positioning of subcodes. Once a general location for the desired subcode is found and the rehearsal button is engaged, a 3 second section of tape will repeat 8 times while the fast forward and rewind buttons allow fine adjustment of the locate point in 0.3 second steps. Subcodes can than be written in the usual fashion.
- Existing start IDs can be accurately repositioned as much as 2 seconds using the rehearsal function.
- XLR balanced and RCA (Phono) unbalanced analog I/O for compatibility with professional and consumer equipment
- Switchable between XLR balanced AES/EBU and coaxial S/PDIF Digital I/O
- 8-pin parallel port is available for custom wired remote control of transports.
- Serial remote input for optional RM-D750 wired remote
- Includes wireless remote commander

5 Reasons to Choose Sony PDP Series DAT Tapes

The PDP Series employs ultrafine "Chrystal Art" magnetic particles, which deliver high rententivity and outstanding output.

Sony's original HD&R Binder Systems allows for higher densities and better durability, while the special backcoating ensures a tape with low error rates, even after 1000 cycles.

The anti-static resin lid shuts out dust and other unwelcome particles. Also, the high-precision heat resistant shell prevents warping due to excessive heat.

The Polypropylene material of the case does not crack easily, even when accidentally dropped.

There's also a "dust-free" lid construction that guards against abrasion dust being generated during openings and closings. A stronger lock mechanism and roundish edge construction protect against shocks from falls while also preventig tape slack.

PCM700 Adds

- 4 heads to allow monitoring off of tape while recording (known as confidence monitoring)
- Automatic Fade in & Fade out adjustable between 0.5 to 9.5 seconds
- Key protect function disables certain front panel controls to prevent accidental erasing or manipulation of a tape.

PCM-7040 *Digital Audio Recorder*

Supported by a wide range of essential features for DAT recording and editing, the PCM-7040 offers an affordable 2-track digital recording solution for the professional post production and broadcast environment. Features such as an onboard timecode reader/generator, digital I/O, memory start, an RS-232 interface and edit memory are standard. Using the internal timecode reader generator, editing, chase synchronization and conversion between the SMPTE/EBU/FILM and DAT timecode formats is possible. Both drop and non-drop frame rates are supported as well as the ability to reference to composite video, composite sync and blackburst signals or in the case of a digital audio configuration, word clock I/O is also supported. The memory start function stores 3 seconds of stereo audio, overcoming the inherent delay found in a normal rotary head DAT system, thus allowing the instart capabilities required by broadcast facilities.

SV-3800/SV-4100

Professional DAT Recorders

Outstanding sound quality and reliability is why so many audio professionals consider them to be the industry standard for DAT machines. They accept a +4dB balanced analog input source as well as multiple digital input sources. They use advanced A-D and D-A converters for natural sound recording and reproduction with low noise, wide dynamic range and accurate phase characteristics. Ruggedly constructed, only audio parts with maximum tolerance are used throughout, while improved grounding layout minimizes RF interference and hum from external equipment. The SV-4100 adds advanced cueing functions and reads externally generated time code for synchronizing to video decks and machine to machine editing.

FEATURES

- Dual high resolution 20-bit digital-to-analog converters (DACs) process left and right information separately, giving enhanced performance stability and lower noise at the higher frequencies.
- Shuttling to specific parts of a tape can be accessed via Start-ID or PNO (Program Number).
- The Skip-ID feature allows you to skip unwanted material on a tape.
- Single program play allows you to play through a section of tape and stop before the beginning of the next selection.
- Independent left and right level controls
- Digital fade-in/fade-out
- Shuttle wheel with two speed range
- 8-pin parallel remote for connection to another DAT deck, PC or wired remote. Includes a wireless remote control.
- Error rate display shows block errors of head A, B and A+B

Inputs/Outputs

- Two +4dB balanced XLR analog inputs
- Two switchable (+4dB/-10dB) balanced XLR outputs for compatibility with professional and consumer line level inputs.
- Digital interfaces include XLR-balanced AES/EBU I/O as well as consumer format IEC 958 with both coaxial (RCA) and optical I/O connectors.
- Levels can also be attenuated from +4dBu to -6dBu in 1dB steps.

SV-4100 Step-Up Features

Quick Start Functions

- With 8-Mbits of memory holding five seconds of audio data, the Quick Start function provides instant playback making it ideal for broadcast applications.
- Easily adjust the Quick Start position and specify it by Absolute Time (ABS), Start ID or PNO (Program Number). Quick Start record allows two SV-4100s to be used for frame-accurate punch-in/punch-out and assemble editing.
- You can adjust the Quick Start position with 1-frame resolution over a range of ±50 frames. Using the shuttle dial and Skip key for adjustment, frame number is preceded by + or - sign. ABS, subcodes and peak level are displayed to provide a general guide to positioning.
- Without playing the tape, you can monitor the level of stored data to check your Quick Start position. This preview capability is handy before actual editing or on-air play. Repeated play is also possible, using about 1.5 seconds of the data to create a loop.

Synchronization

- Recognizes external SMPTE time code (25, 29.97 and 30 frames per second), essential for video post-production and stereo submix recording. Word clock sync and Digital Data sync (locks to incoming sampling frequency) assures accurate data transfer between digital equipment.

Frame Accurate Indexing and Editing

- Using the trim and rehearsal functions, you can accurately determine points to write start and skip IDs. These IDs can be written, rewritten or erased at any point in the recording and automatically renumbered.
- With two SV-4100s connected via the 8-pin parallel remote terminal, synchronized frame-accurate editing can be performed. Continuity of edit points can be checked by rehearsal playback. By entering and editing end position in one of the Locate buttons, you can determine a punch-out point as well.
- GPI input allows simple triggering of Quick-Start Play.

Flexible Search

- Easily and accurately access your ABS (Absolute Time). You can specify hour, minute, second and frame.
- In most modes, the currently displayed ABS can be assigned to one of the Locate buttons. Then from Stop, Pause or Play you can rapidly cue to any of these four addresses by pressing its Locate key. In addition, Locate Last takes you to the most recent Quick Start ABS position.
- Search is also possible by Start ID or program number.

D-15/TC/TCR

Professional Timecode DAT Recorders

The most affordable timecode-capable DAT recorders on the market today, the D-15 series offers XLR-balanced analog and AES/EBU digital I/O, jog/shuttle wheel and instant start capabilities, essential for professional audio applications. A 4-motor transport ensures rock solid performance as well. Upgradable or available with the ability to read and output timecode (D-15TC) at any frame rate or RS-422 machine control (D-15TCR).

FEATURES

- Supports 16-bit recording and playback at 44.1 and 48kHz sample rates.
- 18-bit, 64X oversampling A-D and 20-bit, 8X oversampling D-A converters
- S/N ratio and dynamic range over 92dB
- Efficient 4-motor transport (2-DD) for stable performance and reliability. Up to 200x search speeds
- Jog/Shuttle allows you to audibly cue or review tape at 1/2 to 2x speed in jog mode and 1/2 to 15x in shuttle mode.
- Input reference levels can be set to -12, -18 or -20dB. Default setting is -12dB.
- Instant start without pre-loading into RAM or you can use the 10 second RAM buffer for locating specific start points.
- In addition to being able to access locate points using start IDs, an additional 100 locate points can be stored in memory for editing complex tapes.
- Auto Record when used in conjunction with memory locate points 00 and 01 allows punch-in/ out recording with a 5 second pre-roll. Locate points can be rehearsed before executing the punch.
- Skip ID mode allows three selectable options; stop, play or off.
- Auto Cue mode enables automatic recording of Start-IDs and PNOs. Auto Cue mode is executed when the initial sound threshold level (determined by the Cue Level setting) is exceeded. Cue levels are settable to -55, -40, -30 or -20dB.
- Analog and digital inputs can be made active without engaging transports.
- Individual front panel trim pots for reference level calibrating. Allows control of input levels in ±2dB increments.
- Front panel lockout function.

Comprehensive Displays

- Displays time, date, program number, level meter, margin level in 0.1dB steps, absolute time, CH-1 and CH-2 level and error rate.
- Preset display indicates status of ID mode, TOC, emphasis, sample rate, reference level, chase lock (TC, TCR versions only), PCM error and PCM mute.
- Peak reading digital bargraphs with 5 settings, can be held for closer viewing.

Inputs/Outputs

- +4dB XLR balanced and -10dB RCA (phono) unbalanced analog I/O.
- XLR balanced AES/EBU and optical S/PDIF digital I/O.
- Level trim controls adjust the balanced and unbalanced analog outputs.
- 37-pin parallel interface for external control of transport functions, RAM scrubbing and ID writing/searching.
- GPI (General Purpose Interface) input and output for control of the transport functions and RAM scrubbing
- Headphone output with level control

D-15TC and D-15TCR

Intended for those professionals in the production industry who need to sync to video sources, the D-15 when outfitted with the optional timecode expansion card may be the lowest price professional timecode capable DAT recorder on the market today. The D15 has two expansion slots in the rear. The 8335 External Sync card can be installed for video reference facilitating striping of the tape with externally generated timecode and output of LTC or Absolute Time (ABS). Absolute Time can also be converted to LTC giving you the option of referencing exterally to Video or World clock.

The second expansion slot may be used for the addition of the 8336 RS-422 protocol Serial Card (with the exception of vari-speed command). The 8336 board allows you to have your controllers shuttle the machine to desired locations. (Note, the 8336 must be used in conjunction with the 8335 Sync Card)

- Reads, writes and chases externally generated timecode. Can input and output LTC through its XLR or RCA I/O.
- Supports 24, 25, 29.97 and 30 frames per second (drop and non-drop frame).
- Timecode can be offset against master machine
- Can reference to external video or word clock (BNC connectors).
- 9-pin RS-422 control
- Model #8335 option card adds Timecode capability to standard D-15
- Model #8336 option card adds 9-pin RS-422 port to D-15TC

D-25/D-30

Time Code Studio DAT Recorders

Fostex's top-end studio timecode DAT recorders. The D-25 and D-30 are built from the ground up to seamlessly integrate into any professional video editing suite. They feature 9-pin RS-422 connectors that conform to Sony and Avid's machine control protocol and will perform an EDL list from a master recorder. All drop and non-drop frame rates are supported with full chase lock and jam sync capability. The Jog/Shuttle wheels and 16-Mbit of RAM allows precision machine to machine editing, push button rehearsal without engaging transports and frame accurate cueing for instant start. Discrete two-channel recording capability is ideal for broadcast applications such as bilingual dialog. XLR balanced analog I/O and AES/EBU as well as S/PDIF digital I/O gets your audio where it needs to go.

FEATURES

Recording Modes

- 4-head confidence monitoring as well as standard audio monitoring.
- Audio and timecode can be recorded simultaneously in Assembly Mode, or independently recorded in Insert Mode.

Synchronization

- Time code can be generated internally or supplied from an external source. All frame rates are supported and can even be changed internally. Furthermore, Absolute Time can be converted into LTC.
- Time code can be recorded on blank tape or inserted on a pre-recorded tape. When timecode is recorded part-way through a tape, Jam Sync allows recording from the point where the timecode has left off.
- Chase Sync allows synchronized playback with a timecode equipped VCR or digital audio workstation. Timecode offsets can be captured and adjusted on the fly.
- RS-422 interface allows ±12.5% vari-speed control, assemble editing, EDL execution or deck to deck editing with variable cross-fade times from 0 to 300 ms (milliseconds).
- Can reference to Word Clock, VITC and Digital Input Sync (BNC connectors). Pull Down with reference to video

Search Functions

- Absolute time and timecode locations can be stored in memory for instant access.
- Find an exact tape location by Hours, Minutes, Seconds and Frames.
- Blank Search finds the precise end of a recording. Ideal for re-starting uninterrupted recording in assembly editing.
- AUTO CUE locates the next/previous audio signal using a default reference level which it considers its threshold.
- Shuttle wheel allows audible cueing at 1/2x to 16x normal speed. You can also jog the tape back and forth at 1/2x to 1x.
- 16-Mbit of RAM facilitates RAM Scrub, storing 5 seconds of audio on either side of the current location point. When used with the jog/shuttle, you can scrub from between 0 - 1x normal speed allowing cue point accuracy within a frame.
- While in RAM SCRUB mode, pressing the Preview/Review button auditions 2 seconds of audio from the scrubbed location without engaging the transport. Hit it twice and the unit goes into an infinite loop repeating one second of audio from the location point, indispensible when rehearsing cue points.

Subcode Recording

- Automatic Start IDs and PNOs are written once an incoming audio source is detected above a selected threshold.
- Manual Start IDs and PNOs can be recorded during recording or playback.
- PNOs can be renumbered.

Inputs/Outputs

- +4dB XLR-balanced analog inputs as well as +4dB XLR-balanced and -10dB 1/4˝ (monitor) analog outputs
- AES/EBU digital I/O
- GPI and 37-pin remote interfaces

Additional Features

- Instant Start is available via the built-in RAM.
- Large illuminated transport buttons
- The DISP LEVEL button toggles between channel 1 level, channel 2 level, errors, <blank> and margin.
- Margin display with reset key shows peak level in dB during playback or recording.

D-25/D-30

D-30 ADDS

- 18bit A to D and D to A convertors
- ±12.5% pitch control
- Four DD motor transport with separate reel motors for around the clock operation
- Independent 2 channel recording and spot erase with single frame accuracy.
- Dual function fast-forward and rewind keys allow the transport to be moved at 5 or 100 times normal speed or use tape jog mode for more precise location of points.
- Supports auto-record of up to 799 PNOs with a user-settable audio level threshold.
- A large high resolution backlit LCD display with machine function status.
- Ten function keys enable direct access to different functions
- Transparent transport window gives visual feedback of tape and 4-head drum status.
- Two RS-422 ports— Port A receives data while Port B transmits or receives data
- Two D-30s connected over RS-422 (one fitted with an 8331 2MB RAM card) allows machine to machine editing, previewing and fine tuning in RAM without the added expense of a separate controller.
- VTR emulation and included IDs for most popular machines ensures seamless system integration with edit controllers
- The incorporation of a Wideband LTC (1/30th to 50 times play speed) and VITC reader means the D-30 will never be left trailing your video machine.
- Modular construction allows access to the tape heads for cleaning and maintenance while the D-30 remains in the rack
- Optional 8334 parallel General Purpose Interface (GPI), useful for remote or fader start & other broadcast applications.
- Optional 8331 Card gives the D-30 an additional two MB of source RAM which allows you to cut, copy and paste internally, and then preview the edit before committing to tape.

D-5 *Affordable Full-Featured DAT Recorder*

An affordable full featured DAT recorder, the D-5 features balanced XLR analog I/O and AES/EBU digital I/O, three selectable sampling rates, and +4 or -10dBu compatible analog inputs. It also offers a unique jog/shuttle function that makes audible cue and review of a tape a snap.

- Supports 16-bit recording at 48, 44.1 kHz sampling rates and 12-bit/32kHz in Long Play mode. Long Play doubles the amount of recording time available on tape for long recording sessions.
- Employs highly reliable 'Sendust' heads with improved wear characteristics for increased audio quality. Frequency response is 20-20kHz, S/N ratio is 90dB.
- Automatically goes into Stop mode after 5 minutes in Pause mode to protect the tape and reduce head wear.
- 3x and 5x speed audible CUE/Review in playback (6x and 10x in LP mode). 0.5x speed in Play/Pause mode. Also offers search speed of 300x (under 60 seconds for a 120 minute tape) and Automatic Index search for locating Start ID's.
- Automatic rewind function when the tape encounters an END-ID mark.
- Can display absolute time, program time, remaining time, remaining playback time, remaining time of one tune, elapsed time and total performance time.
- Auto recording of Start-IDs and Program-Numbers (PNOs)
- Recognizes CD-Q codes (track numbers) via the S/PDIF input. This ensures accurate Program Number (PNO) encoding when digitally recording from CD.
- Margin display with reset key, numerically references the highest input level in dB, aiding in setting optimum input levels.
- Read and write TOC information (Table Of Contents) includes total time on tape and total program numbers recorded.
- Saves all current settings in memory after powering down (Last Memory Mode).

Connections

- AES/EBU and optical S/PDIF digital I/O as well as XLR-balanced analog I/O. Inputs are switchable between +4dB and -10 dB to ensure compatibility with professional and consumer equipment.
- Equipped with GPI (General Purpose Interface) input for external transport control, ID search and fader starts.
- 1/4″ headphone jack with level control
- Supplied wireless remote allows direct track access and programming of up to 30 tracks for playback in any order.
- SCMS (Serial Copy Management System) free recording allows unlimited duplication of DAT tapes

DA-20MKII

Master Quality DAT Recorder

An economical master DAT recorder, the DA-20MKII delivers solid, reliable performance with true CD sound quality. Well suited for home studios,"b" rooms and video suites, the DA-20mkII's S/PDIF digital and unbalanced RCA connectors allow integration with most of today's desktop video editors and digital audio workstations.

FEATURES

- Supports 16-bit recording at 48, 44.1 kHz sampling rates and 12-bit/32kHz in Long Play mode. Long Play doubles the amount of recording time available on tape for long sessions like sermons or conferences.
- Capable of SCMS free recording with simple power-on procedure.
- Start ID and PNOs (Program Numbers) can be written automatically or manually.
- Program Numbers can be renumbered if accidentally inserted out of sequence.
- Auto ID level switching offers four selectable audio levels (-30/-40/-50/-60dB) for easier, more accurate start ID encoding.
- Subcode functions include; Absolute Time, Program Time, Start ID, Program Number, Skip Id, End Mark, lead-in area and renumbering.
- Cassette stabilizer eliminates vibrations from interfering with tape stability.
- Sampling Monitor displays a visual confirmation of analog or digital source signals.
- Margin display with reset button continuously displays maximum peak level in dB.
- Character Pack function enables titling and other text (take #, version #) of up to 60 characters per track. Text is displayed in the counter display during playback.
- Self-diagnostic function warns of potential problems like condensation, irregular tape tension, dirty heads or a damaged tape.
- Last memory function retains auto ID and input selector after powering down
- Includes a wireless remote control

Inputs/Outputs

- Consumer format (-10dB) unbalanced RCA (phono) inputs and outputs
- Consumer format coaxial digital I/O
- Single stereo input level control with left/right balance

DA-302 *Dual DAT Recorder/Duplicator*

A unique dual mastering DAT deck with high speed dubbing and continuous recording capabilities, the DA-302 can make an exact clone of any DAT tape including all subcode information. Flexible and easy to use with exceptional sonic quality and reliability, it is ideal for archiving, mixdown, duplicating and installation. Cascade multiple DA-302's to work in tandem.

- Two DAT decks in a single 3 unit rackmount work independently or in tandem. Recording on both decks simultaneously, allows you to create a master and back-up master in one pass.
- High speed (2x) and real time dubbing lets you clone any DAT including subcode and timecode information.
- Continuous long format recording from deck 1 to deck 2 at 32kHz, records up to 8 hours on two 120 minute tapes
- Append dubbing allows dubbing from any position on the master tape.

Menu Functions

- Peak hold metering on/off
- Seqtime sets the start time for deck 2 during continuous record. This feature extends to continuous recording when cascading multiple DA302s. Settable in 1 minute or 15 minute increments between 0H15M00S and 2H30M00S
- Loop function when enabled starts the master deck after the last slave deck finishes continuous play/record operation.

Input/Output

- Independent S/PDIF digital and unbalanced RCA analog I/O for each deck
- External control for multiple unit operation with analog and digital cascade outputs.
- Optional LA-D302 balanced analog I/O kit offers stereo inputs and 2 sets of stereo outputs.
- Optional WR-7000 synchro cable allows making DAT clones from one DA-302 to another.

DA-40

Professional DAT Recorder

Found in recording studios around the world, the DA-40 offers balanced and unbalanced analog and digital inputs/outputs to ensure compatibility with a wide range of pro and semi-professional audio gear as well as video editing equipment. Well constructed rackmount chassis, large easy to read display, and comprehensive setup menus complement the DA-40's sonic excellence. And like the DA-20MKII it features text editing capability, allowing tape and program titles to be inserted in the subcode of the tapes for cataloging and identification.

All the features of the DA-20MKII PLUS—

- Shuttle wheel (up to 12x speed) for audible cue and review and refining locate points. Data wheel selects program numbers and changes menu and parameter settings.
- Margin display is measured in 1dB increments between 40dB and 20dB and 0.1 dB increments between 19dB and 0dB.
- Two assignable locate points (with selectable 0 to 5 second pre-roll) memorizes precise locations for quick access to any point on a tape.
- Counter mode switches between Absolute Time, Program Time and time remaining.
- In addition to counter mode, displays Program Number, Margin Mode, Digital Audio Frames mode (100 frames every 3 seconds) and Block Error Rate mode.
- Auto ID time setting has a range of 0.5 to 3 seconds in 0.5 second increments allowing precision Start ID placement.
- Analog input source selector allows either uncalibrated (allows variable level control) or calibrated (defeats variable level control with a constant +4 or -10 dB setting).
- Auto ID level detection is selectable from -48, -56, -60, -66 and -72dB.
- Record Mute time has a default of 4 seconds and can be set from 2 to 7 seconds.
- SCMS is selectable to allow no copies, one copy or unlimited copies.
- Indicates total time that the drum heads have been in use. Useful for scheduling head cleaning and general maintenance.
- End ID markers can be set to be automatically written when recording stops. Autorewind can be activated when an End ID marker is recognized.
- Programmable repeat function lets you loop audio over specific points. Loops can be set to play 10x or indefinitely.

Inputs/Outputs

- XLR-balanced and RCA unbalanced analog inputs and outputs.
- Separate left and right input level controls
- Balanced outputs have a trim control ensuring compatibility with the widest range of analog audio equipment.
- XLR-balanced AES/EBU and coaxial S/PDIF digital I/O connectors. XLR-balanced and coaxial digital outputs can be reversed allowing S/PDIF signals to be output via the XLR output or vice versa (AES/EBU via the coaxial output).
- 15-pin parallel interface for automated control environments, fader starts and edit controllers.
- Optional RC-D45 wired remote control

DA-45HR *High Resolution DAT Recorder*

The next logical step in DAT technology is here! The DA-45HR has all the features and functions of the DA-40, plus its equipped with 24-bit record capability—making it the ideal mixdown deck for today's high-end digital audio workstations (DAWs) and mixers.

All the features of the DA-40 PLUS—

- Two record modes- High Resolution (24-bit) and standard (16-bit). 24-bit high resolution mode records up to 60 minutes on a 120 minute tape.
- 24-bit A to D and 20-bit D to A converters with dither provides accurate reproduction of the original source material.
- Programmable repeat function settable from 2 to 15 repeats to unlimited looping
- Digital out word length is selectable to 24-bit or 16-bit.
- Record mute time is selectable from 1 to 8 seconds in .5 second intervals.
- Matches I/O reference levels of analog equipment (+4dBu, -10dBV) to digital reference levels; -20 (SMPTE), -18 (European) and the default -16dB
- Word Sync In and Thru using standard BNC connectors ensures sample accurate sync between compatible digital devices.

MZ-R55CG

Ultra-Compact MiniDisc Player/Recorder

Although the smallest minidisc recorder available, the MZ-R55CG has a feature list more commonly found on full-size decks. It features CD-synchro record, text and track editing, line inputs and outputs, and a stereo mic input for interviews, sound effects gathering and live music recording. An optical input allows digital recording directly from DAT, CD or minidisc. Large 40-second SRM buffer prevents skipping during recording and playback making sure you won't miss a beat.

FEATURES

Record/Playback

- Large buffer with 40 seconds of shock resistant (SRM) memory
- Built-in sample rate converter automatically converts 32 or 48 kHz audio to MiniDisc's 44.1kHz sampling rate.
- 5Hz to 20kHz frequency response and greater than 92dB of dynamic range
- Records up to 74 minutes of stereo audio and 148 minutes mono
- Record for 2.5 hours or playback for up to 4 hours using a single NiMH battery: Add two AA batteries to the supplied AA battery magazine and you get up to 16 hours of playback.

Connections

- Stereo unbalanced mini line inputs and outputs
- Stereo mini mic input with high and low sensitivity switch
- Optical mini digital input
- Headphone output with remote terminal
- Includes back-lit LCD wired remote with transport and volume controls as well as editing capabilities such as; track and disc labeling and change track sequence.
- Includes AC Adapter, NH-14 NiMH battery, headphone with remote control, optical cable and carrying case.

Control Functions

- Digital AGC (Automatic Gain Control) automatically sets recording levels without sacrificing audio quality.
- Manual record levels can be set during analog recording.
- Play modes include; continuous playback, shuffle (random) play and repeat mode (single track or entire disc).
- When digitally recording from CD, CD Synchro record function automatically enters the MZ-R55 into Record Mode once the CD player begins playback.
- Post recording editing features include; Erase One, Erase All, Add/Erase track mark, label and move tracks.
- A portion of audio can be erased by setting a start and end marker within the track and erasing that section.
- Built-in clock automatically records the current date and time whenever you make a recording.
- Three Digital Mega Bass modes: normal, moderate effect and strong effect
- AVLS (Automatic Volume Limiter System) prevents ear damage by controlling the maximum headphone volume.
- Hold button locks the recorder's controls.
- LCD display shows transport status, record level, volume, track number, text info, elapsed and remaining track time, date and time, play/record mode and 4 segment battery life indicator.
- Simultaneous labeling feature allows you to label tracks while recording.

MiniDisc (MD) Technology

The ideal recording format, Sony Minidisc uses Magneto Optical technology, allowing you to record, edit, erase and even re-record up to 74 minutes of pure digital audio– up to a million times with virtually no loss in quality– on a disc that fits in your shirt pocket.

Non-Linear Record and Playback
Non-linear recording and playback offers instant track access like a CD as well as the ability to automatically locate blank space on which to record. If a song is erased anywhere on the disc, that data then becomes free space on which to record regardless of the track order.

Shock Resistant Memory (SRM)
Minidisc employs SRM (Shock Resistant Memory) buffer memory chip to store music before it is heard. Since the buffer stores at least 6 seconds of music, you won't hear any skipping if the laser is momentarily bumped out of place. Once the laser recovers it will begin filling up the buffer again, giving MD continual sound on the rockiest of roads.

ATRAC Advantage
Adaptive Transform Acoustic Coding (ATRAC) records only the frequencies that the human ear is most sensitive to and not unwanted feedback and chatter that is hidden by louder but similar sounds. Recording with ATRAC, results in up to 74 minutes of pure digital recording on a 2.5 inch disc. ATRAC does this by dividing the 16 bit 44.1 KHz digital signal into 52 sub-bands in the frequency domain. The sub-bands in the low frequencies are finer than the ones in the high frequency range. A psycho-acoustic transfer function that takes advantage of the masking effect and the absolute hearing threshold of man then removes enough information to reduce the data stream to 1/5th of the original size (5:1 compression).

MDS-JE530/MDS-JE630

MiniDisc Recorders

MDS-JE630

Using the latest ATRAC (Adaptive Transform Acoustic Coding) compression and high resolution 24-bit A-D converters, the MDS-JE530 and JE630 deliver unprecedented sound quality and dynamic range in the convenient minidisc format. Almost identical except for the MDS-JE630's enhanced text capabilities and extra optical digital input, they both integrate into broadcast, production and installation environments with the same instant track access and variety of playback modes found on professional CD players, but with the added ability to digitally record, edit and re-sequence audio.

FEATURES

- High precision 24-bit A-D converter provide a far wider dynamic range than conventional 16-bit converters, while Wide Bit Stream technology maintains 20-bit precision through the recording process for clear reproduction of audio with low signal levels.
- ATRAC type-R digital signal processing offers even better error evaluation and a second stage of bit re-allocation for greater processing accuracy and smoother, more clearly delineated sound.
- Records up to 74 minutes of stereo audio and 148 minutes mono.
- 6 seconds of shock resistant memory
- Automatically converts 32 or 48 kHz audio to MiniDisc's 44.1kHz sample rate.
- 5Hz to 20kHz frequency response and 96dB of dynamic range

Inputs/Outputs

- Stereo RCA unbalanced line ins/outs
- Optical digital in and out
- Headphone jack with volume control

MDS-JE630 Step-Up Features

- When connected with a compatible Sony CD player, CD text and custom file text transfer allows the disc and track names stores on the CD to automatically be encoded on the minidisc.
- PC keyboard input on the front panel can be used for text entry.
- Two optical inputs

Front Panel

- Playback pitch control
- CD-Synchro record function
- Convenient jog/shuttle for track selection and text entry
- Analog and digital record level control
- Play modes include; continuous playback, shuffle (random) play and repeat mode (single track or entire disc).
- Smart Space recording inserts 3 seconds of silence in between tracks.
- Two-line fluorescent display with precision peak level meters
- Editing features include; Erase One, Erase All, Combine, Divide, Undo, Record from end, Record over and move tracks.
- A-B erase allows you specify a start and end point of an unwanted section of audio within a track like dead air and delete it.
- Advanced time shift recording using the internal ram buffer captures 6 seconds of audio even before you start recording.
- Automatically goes into Record/Pause if no audio is detected for 30 seconds
- Supplied remote control with 25-key direct access track selection and title input.

MINI DISC

SONY MiniDiscs

MDW-74 ..... **3.29**
10-Pack **27.90**

Maxell MiniDiscs

MD-60RM **5.39**
MD-74RM **5.49**

HHB MiniDiscs

MD-74 ..... **4.29**
10-Pack **39.90**

Fuji MiniDiscs

MDZ-60 ..... **5.49**
MDZ-74 ..... **3.99**

MDS-E58

Industrial MiniDisc Recorder

Combining the basic features and conveniences of a consumer minidisc recorder with the ruggedness of a 2U high rackmount chassis and heavy duty MD drive, the MDS-E58 is a low-cost professional solution for any A/V installation or production studio. High quality digital sound and powerful editing capabilities allow you to mixdown multitrack material, splice audio sections and create custom playlists.

FEATURES

- ATRAC (Adaptive Transform Acoustic Coding) v4.5 for CD-like sound quality
- Incorporates 18-bit A-D converters while Wide Bit Stream technology maintains 20-bit precision through the recording process for clear reproduction of audio with low signal levels.
- Automatically converts 32 or 48 kHz audio to MiniDisc's 44.1kHz sample rate.
- Frequency response of 5Hz to 20kHz with 97dB dynamic range
- Records up to 74 minutes of stereo audio and 148 minutes mono.
- Large display shows disc and track info as well as status of the various functions.
- After you insert a minidisc, the disc name, followed by total track numbers and then disc playing time appears. You can also toggle between all three of them
- 25-track music calendar counts down the remaining tracks that have not yet played.
- Program play allows you to specify up to 25 tracks to play back in any order.
- Auto Repeat function with four modes: Normal play (all tracks repeat), Repeat 1 (repeats current track), Shuffle play (tracks repeat in random), Program Play (selected songs are repeated).
- Full-featured TOC (Table Of Contents) editing includes undo, divide and combine.
- Auto Pause function pauses the MiniDisc when playback of a track is complete.
- Auto Space feature inserts 3 seconds of silence in between tracks.
- You can manually add a track marker at any time while recording on a MD by pressing the REC button.
- When recording digitally from an MD or CD, track markers are recorded automatically. When recording from an analog source or digitally from a DAT machine, track markers can be written automatically using the Level-Sync feature.
- Time Machine Recording function continuously stores 6 seconds of audio data in its memory buffer ensuring no program material is lost because of missed cues.
- A specific track can be located using the AMS knob to look ahead and back until you find the desired track.
- While playing, FF and REW buttons can be used for audible cue and review.
- Includes wireless remote commander
- CD-synchro recording capability
- Engaging the Music Sync button puts the recorder into Record/Pause mode waiting for the source deck to begin playback, at which time recording will start.
- The Music Scan feature of the remote control scans the beginning of individual tracks (settable from 6 to 20 seconds) and then moves on to the next track. When the desired track is found, press play.

Inputs/Outputs

- Headphone output with level control
- S/PDIF coaxial and optical digital I/O
- RCA unbalanced analog I/O
- Control-S interface

Editing

- An edit mode is selected using the AMS knob. Once the edit mode is chosen, the AMS knob is then utilized to specify the parameter for editing.
- While in edit mode, the following functions are available:

— Erase function instantly erases one or all tracks

— Combine function joins any two consecutive tracks and is useful for joining two portions of a song to create an arrangement.

— Divide function allows you to split a track into two parts allowing you to add track numbers after a track has been recorded or to mark a section in the middle of a track that needs instant access.

— Move function changes the track order

— Up to 1,700 characters can be used to title a disc and individual tracks. Label tracks in Play, Pause, Record and Stop modes.

— The Divide, Erase and Combine functions can be used together to erase a portion of a track. Use Divide to select an in point at the beginning of the section of audio to be erased. Then use the Divide function again to select the end of the section of audio to be erased, erase that section and then combine the outer sections together.

— You can undo last executed edit as long as none of the record modes are engaged and power is not interrupted.

— Whenever a track is erased, divided combined or moved, the subsequent tracks are automatically renumbered.

MDS-E11

Professional MiniDisc Recorder

The MDS-E11 is a 1U high, professional MD recorder, designed for use in mobile A/V, live sound (contractor) and broadcast applications. It's compact design and remote interface capability make it suitable for a variety of mobile and installed sound applications.

Same features as the MDS-E58 PLUS—

- Dual line LCD display
- When an extended silence of up to 30 seconds in length is broken with an audio signal, the deck automatically replaces the silence with a three second blank space and continues recording.
- A specific section of audio within a track can be set to loop continuously using the A-B repeat button.
- Sturdy 1U rack-mount chassis
- Timer can be used to start and stop playback or recording at a specified time.

Cascadable

- Relay record in, play in and output allow you to connect several MDS-E11s together with a stereo 3.5mm mini plug for uninterrupted sequential playback and recording. In record mode. if the display is set to show remaining disc time, a relay message will be sent from the current deck to start the next six seconds before the end of the current disc.

Inputs/Outputs

- RS-232C machine control interface
- Coaxial S/PDIF digital I/O (no optical)
- Switchable XLR balanced and RCA unbalanced inputs and outputs
- Balanced outputs are switchable from +4dBu to -10dBu
- User assignable 9-pin parallel remote interface allows external control and monitoring of several of the machine's functions including fader start.

Marantz PMD-650

Professional Portable MiniDisc Recorder

Offering the same basic features as their legendary portable cassette recorders while providing the benefits of a sophisticated digital recorder, the PMD-650 is ideal for interviews, music, multimedia, broadcast video and film production. It includes two XLR-balanced mic/line inputs, a built-in mic, and a monitor speaker. It supports 74 minutes of stereo and 148 minutes of mono record and playback, and has a host of practical features that make quick work of any high pressured production environment. For example, when recording from one mic/line source onto two tracks, the PMD-650 incorporates a dual mono mode that sets the level of the 2nd track 15dB lower than the first, to make sure that a backup track is available in the event of a problem or digital overload.

- Editing capabilities include: divide, combine, move, erase
- Time/Date stamp as well as full text display and editing
- 40 second (20 sec. 2-track) audio buffer for shock resistance
- Pre-Record audio cache (up to 2 sec.)
- One touch recording with separate Rec-Pause button
- Control of SCMS (on or off)
- Three record level control choices: manual, manual with limiter, and automatic
- Programmable Level Sync Recording (LSR) saves disc space by only recording when there is sound present.
- Built-in microphone and speaker
- Backlit LCD display
- Two position noise cancel filter
- A-B loop playback
- Repeat Playback (all or one track)
- Low Battery Alarm
- 3-way power: AC adapter, 8 AA batteries, or optional Nicd RB-1100 battery

Inputs/Outputs

- Stereo XLR mic/line inputs
- 48v phantom power
- Variable mic attenuator (0, -15, -30dB)
- Stereo RCA analog line outputs
- RCA digital input (S/PDIF) with sample rate converter and XLR digital output (S/PDIF)
- Remote control (RC-5) input
- Headphone jack with level control

TRM-6 / TRM-8

Bi-Amplified Near-Field Studio Monitors

Combining their legendary Trans-nova amplifier technology with a proprietary speaker design Hafler has created two exceptional reference monitors for tracking, mixing and mastering. The TRM-series is electronically and acoustically matched, so they deliver consistent quality for close field monitoring and surround-sound applications. Recording facilities, video post houses, remote broadcasts, large rooms, and project studios will all benefit from the accuracy and detail of these uncompromising reference monitors.

- Extended frequency response of the woofer provides flat reproduction from subsonic frequencies to well above 3 kHz for seamless transition to the wave guide tweeter.
- Wave guide delivers smooth, coherent on-axis frequency response for focused and refined imaging. A Phase Lens is added for improved off axis listening.
- Short three stage Trans-nova circuit design results in an uncolored, transparent signal path through the amplifier.
- Biamplification design and active crossover allows the acoustic sensitivity of the woofer and wave guide tweeter to be trimmed with much more accuracy than a simple passive monitoring system.
- DIAMOND (Dynamically Invariant AMplification Optimized Nodal Drive) circuit improves the headroom of the driver amplifier by combining the linearity of class-A operation with the current headroom of a class-B system, reducing high frequency distortion and improved ultrasonic stability.
- Combination XLR/ 1/4″ TRS as well as unbalanced RCA input connectors
- Magnetic shielding allows the monitors to be used near CRTs and video monitors.
- Exoport (rear firing porting system) reduces turbulence by improving airflow while firing away from the listening position, resulting in a warm mid-bass with sharp attack and noise free, powerful low frequencies.
- The low resonance cabinet allows the components to perform as designed, without exhibiting coloration and nodal resonance found in cheaper materials.
- High audio quality components in both the amplifier and crossover are surface mounted on double sided glass epoxy P.C. boards.

TRM-6

- 6.5-inch die-cast low frequency transducer with mica filled polypropylene cone and proprietary 1″ (25mm) ferrofluid filled silk dome hemispherical wave guide tweeter.
- 50 watt low frequency amplifier and 33 watt, high frequency amplifier
- Frequency Response 55Hz-21kHz +/- 2dB
- High frequency Shelving-5Hz to 20Hz, ±4dB in 2dB increments
- Low frequency shelving-48Hz to 200Hz, ±4dB in 2dB increments
- 30/60Hz at 12dB/octave Subsonic Filter
- 24dB/octave Linkwitz-Riley crossover at 3.2kHz

Active Subwoofers

Combining Hafler's legendary amplifier technology with a proprietary woofer design, the TRM10s and TRM12s active subwoofers provide superb bass definition required in today's studio and surround sound environments. The innovative class G trans-ana amplifier provides high performance and low distortion Features include variable input sensitivity and 90/180/270 degree phasing that gives you ultimate control of woofer-to-monitor transition.

TRM-10s

- 10-inch cellulose fibre cone down firing woofer.
- 200 watt low frequency amplifier
- 30Hz to 110Hz frequency response ±2dB
- 24dB/octave Linkwitz-Riley crossover variable (40Hz to 110Hz)

TRM-12s

- 12-inch cellulose fibre cone down firing woofer.
- 200 watt low frequency amplifier
- 25Hz to 110Hz frequency response ±2dB
- 24dB/octave Linkwitz-Riley crossover variable (40Hz to 110Hz)

TRM-8

- 8-inch die-cast low frequency transducer with mica filled polypropylene cone and proprietary 1″ (25mm) ferrofluid filled silk dome hemispherical wave guide tweeter.
- 150 watt low frequency amplifier and 75 watt, high frequency amplifier
- 45Hz to 21kHz frequency response ±2dB
- High frequency shelving-3kHz to 20kHz ±4dB in 2dB increments
- Low frequency shelving-40Hz to 200Hz ±4dB in 2dB increments
- 30Hz at 12dB/octave Subsonic filter
- 24dB/octave Linkwitz-Riley active crossover at 2.5kHz

HR-824

Bi-amplified Studio Monitors

With a their transparent stereo image and large sweet spot, the Mackie HR-824's are magnetically shielded for use near computer and video monitors. A wide range of EQ settings adapt the monitors to any studio environment no matter where they are placed in a room or how reflective the room surfaces are. The ideal monitors for hearing the big picture, where sonic detail and impact is a must.

- 8.75-inch (222mm) low frequency transducer system with mineral-filled polypropylene cone, die-cast magnesium frame and extra-long-throw voice coil
- 1-inch (25.4mm) high-frequency aluminum dome driver with ferrofluid-cooled voice coil.
- Wave guide technology matches the high frequency dispersion pattern to the bass transducer for a seamless midrange transition. Furthermore, recessing the high frequency transducer ensures that its active area is on the same axis with the woofer, providing acoustic alignment of high and low frequencies.
- 100 watt high frequency amp (150-watt peaks) and 150 watt low frequency amp with (200-watt peaks). Proprietary Fast Recovery circuitry prevents latching when the amps are driven at their maximum.
- Amps power up immediately upon sensing an input signal. If no signal is present for several minutes, they go into standby..
- Front panel clipping LED and a signal present/power indicator works with Auto Turn-On feature.
- Vertical, downward-facing jack field on the back lets you place them against a control room wall without the input jacks and power cord forcing the monitor away several inches.
- Ccompensates for setting up the monitors in different parts of a room by attenuating signals at 500Hz; A = -4dB for placement in the corners of a room, B = -2dB for placement against a wall, C = flat (0dB) for placement away from the walls
- Both balanced XLR and balanced/unbalanced TRS jacks accept virtually any line-level input from a mixing console.
- Speaker input gain is adjustable from (infinity) to 0dB attenuation
- Internal cavity is completely filled with high-density foam that absorbs internally-projected midrange before it can exit through the low frequency transducer cone
- Roll-off EQ -3 dB at 50Hz or 80Hz, 12dB/octave Multiple Feedback High Pass filter
- High frequency shelving control adds or attenuates frequencies above 10kHz by 2dB.
- High Freq. EQ ± 2 dB @ 10kHz, shelving
- 39Hz to 22kHz freq. response ±1.5 dB

Tannoy REVEAL/REVEAL ACTIVE

Near Field Monitors

Two-way discrete near field monitors that offer professional performance at a semi-professional price, the Reveal and Reveal Active have extremely detailed, dynamic sound with a wide, flat frequency response. These speakers are magnetically shielded, allowing operation close to video monitors and CRTs. Not just for show, the curved baffle of the front panel reduces diffraction while providing a rigid mounting platform for the drive units.

Reveal

- Shielded 6.5″ bass driver and shielded 1″ soft dome tweeter
- Crossover frequency 3kHz
- Magnetically shielded drive units
- Recommended amplifier power 30 to 100 w rms into 8 ohm
- 65Hz - 20kHz frequency response
- Power Handling RMS/Program 50W/100W
- Nominal Impedance 6 ohm
- Dispersion 90 degrees

Reveal Active Step-up Features

- Biamplified power- 50 W low Frequency 50 W high frequency
- Active crossover.(frequency 3000 Hz)
- 62Hz - 20kHz frequency response
- Maximum SPL (2) 114 dB SPL
- Balanced XLR/ 1/4″ combo jack
- Power ON/OFF switch with power on LED
- IEC inlet with detachable power cord

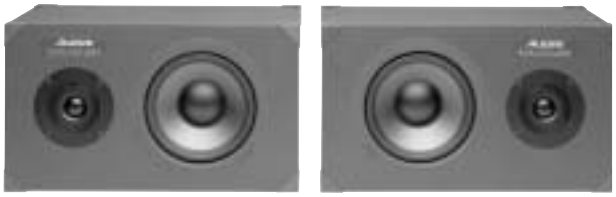
M1 ACTIVE

By combining their expertise in reference monitor design with their proven track record in studio amplification, Alesis has created the M1 Active bi-amplified reference monitor. Incredibly accurate with a wide sweet spot, high power handling and detailed high- and mid-frequency response that perfectly translates to any playback system. Ideal for desktop video and post production facilities as well as home and project recording studios.

- 6.5-inch non-woven carbon fiber low frequency driver: with Santoprene surround and dual magnet shielded configuration
- 1-inch silk dome high frequency driver: with medium viscosity ferrofluid coolant and dual magnet shielded configuration
- 75 watt LF and 25 watt HF amplification
- 38Hz - 23.5kHz frequency range:
- Crossover: 1500Hz, 8th-order, 48dB/octave filters
- Time alignment circuitry added to the tweeter section of the crossover allows the output of frequencies from the high and low drivers to occur in perfect synchronization, avoiding the time smear that's typical in less advanced powered speakers.
- Combination balanced XLR-1/4″ jack connectors with input level control
- LF (Low Frequency) Filter: 2nd order, "optimal Q" high pass, +1dB boost at 50Hz

MONITOR ONE

Award winning studio monitors that prove that you can get a wide and even frequency response out of an affordable near field monitor, the Monitor Ones have excellent imaging and transient reproduction, powerful bass and smooth, extended high frequency detail. Ideal for high-quality monitoring in project studios and commercial recording facilities. Exclusive SuperPort speaker venting technology extends low frequency response while eliminating the "choking" effect of port turbulence.



- 6.5-inch low frequency driver with a mineral-filled polypropylene cone, and a 1.5-inch voice coil
- Ferrofluid cooled 1-inch silk dome high frequency driver making long mixing sessions easier without ear fatigue.
- Crossover: 2.5kHz, 2nd-order filters
- 45Hz - 18kHz, frequency range ±3 dB
- Power Handling is rated at 120 watts program, 200 watts peak
- Nominal Impedance: 4 ohms
- Sensitivity: 88dB SPL, 1 watt, 1 meter
- 5-way binding post connectors

POINT 7

Offering the qualities needed for accurate, non-hyped frequency reproduction the Point Seven reference monitors have excellent transient response and precise imaging in a compact, affordable, fully magnetically-shielded speaker. Ideal for multimedia and post-production audio applications as well as home recording studios.

- 5-inch low frequency with a non-woven carbon fiber woofer cone and 1-inch silk dome high frequency drivers
- Dual front-vented SuperPort system allows the monitors to be flush against a wall without affecting their excellent low-frequency response
- Modified 3rd order Butterfield crossover
- 85Hz - 22kHz frequency range ±3 dB
- Power Handling: 50 watts program, 100 watts peak
- Nominal Impedance is rated at 4 ohms
- Sensitivity: 88dB SPL, 1 watt, 1 meter
- 5-way binding posts connectors on
- Dimensions: (WxHxD) 7.1"x11.2"x7.25"

RA-100 Power Amplifier

- 100 watts into 4 ohms, 75 watts into 8 ohms, per side
- 0.05% THD @ 1kHz (8 ohms), 0.19% THD @ 1kHz (4 ohms)
- 20Hz - 20kHz frequency response ±1dB
- S/N Ratio 100dB below full output
- Input Connectors: 1/4″ phone jacks
- Output Connectors: 1/4″ phone jacks and push clip terminals
- Dimensions: (WxHxD) 19"x3.5"x8"
- Weight: 14.25 lbs

V-6/V-8

Biamplified Reference Monitors

Available with either an eight-inch woofer (V8) or a six-inch woofer (V6) these bi-amplified near field reference monitors are able to satisfy the most critical listening requirements. Featuring separate built-in power amplifiers for each woofer and tweeter and a true electronic crossover that tailors the power and frequency response specifically for each transducer delivers the dynamic range and performance required for everything from digital production to 5.1 surround sound.

V8

- 1-inch Silk Dome tweeter and 8-inch Woven Kevlar woofer
- 60 Watt high frequency and 120 Watt low frequency amplification
- HF adjust +1dB, Flat, -1dB
- LF adjust -3dB at 45, 50 and 65 Hz
- 47Hz - 23kHz frequency response: ±2dB
- Maximum SPL at 1m is rated at 110dB Music, 116dB Peak

V6

- 1-inch Silk Dome tweeter and 6-inch Polyvinyl woofer
- 30 Watt high frequency and 60 Watt low frequency amplification
- 58Hz - 22kHz frequency response ±2dB
- Maximum SPL at 1m is rated at 102dB Music, 105 dB Peak

They Both Feature

- Magnetically shielded
- XLR - 1/4″ TRS Combo plug inputs accommodate balanced and unbalanced line level signals
- Variable Gain +6dB to -30dB

S10 And S12 *Powered Subwoofers*

- Two Channel XLR balanced input and output connectors
- Variable Gain +6dB to -30dB
- Low Pass Variable 50Hz - 130Hz and an 80Hz Fixed High Pass Filter (HPF)
- Phase Adjust Switch 0º or 180º

S10 Only

- 10-inch Woven Kevlar LF driver
- 125 Watt amplifier
- 38Hz to 50Hz - 130Hz (Variable) freq. response ± 2dB

S12 Only

- 12-inch Woven Kevlar LF driver
- 160 Watt amplifier
- 31Hz to 50Hz - 130Hz (Variable) freq. response ± 2dB

K-ROK *Passive Studio Monitors*

Characterized by their smooth frequency response, low distortion and high power handling, the K-RoK by KRK are the ideal close field monitor for project studios and post production facilities. Compact and portable these reference monitors' unique enclosure shape minimizes parallel walls producing better linearity and maximum low-end punch. Extremely faithful reproduction of instruments and vocals can be expected with superb imaging at a cost effective price.

- 1-inch Silk Dome Tweeter and 7-inch Latex-Coated Woofer
- 57Hz - 19kHz frequency response ±3dB
- 5 way binding post connections
- Maximum SPL at 1m: 106dB
- Nominal Impedance: 8 Ohms
- Maximum Power Handling: 100 Watts
- Available with and without magnetic shielding.

DT-770 PRO/DT-990 PRO

Diffuse Field Studio Headphones

Comfortable closed or open headphones for professionals who require a full bass sound as well as clinically accurate high and mid-range reproduction for critical studio monitoring.

- Circumaural closed design isolates unwanted ambient sound.
- Durable, lightweight construction.
- Robust spring steel headband
- Padded headband ensures long-term comfort.
- Equalized to meet diffuse field EQ requirements.
- Innovative Bass reflex technology for improved bass response.
- Single sided cable
- Gold plated jack plug
- 5Hz - 35kHz frequency response.
- 600 Ohms nominal impedance
- 96dB maximum SPL

DT-770 Pro **134.95**
DT-990 Pro (Same as 770 but with open back).....**134.95**

Thinking of Buying a Headphone?

An indispensible tool for audio and video professionals, headphones provide a cheap, but excellent reference environment– the standard against which open-air room listening is judged. Audio reference monitoring is the most important tool producers have for deciding what changes to make to a track and for insuring consistency throughout a production in which narration, music and background audio may be recorded at different locations. By design, headphones eliminate the acoustic interaction with a room that can affect the recording of audio signals, and they reproduce exactly the sound that the audio engineer generated during the final mix-down of a recording or that the cameraman captured during the interview. Of course they offer the ultimate in portability. With a good pair of headphones, your sound will meet your standards wherever you go.

Excellent Acoustics and Great Value

Headphones reproduce sound so well because they have less air to move than do open-air speakers, and because they do it in a tightly controlled environment. Their sound quality can be five times better than that of speaker systems selling for the same price, or better yet a $200 set of headphones can have the same specifications for fidelity (frequency response, nominal impedance, sensitivity and total harmonic distortion) as room speakers costing $1000. In addition, headphones are a great value. They are basically small, low-power speakers, and they don't contain expensive parts that can heat up and blow the way big speakers do. Ultra high reliability is also the result of 30 years of design experience as well as new materials and new manufacturing techniques.

The Makings of a Good Headphone

Many headphones, especially consumer ones are poorly engineered and use the cheap electronic circuitry. Headphones are miniature speakers and miniature speakers require miniature power amplifiers. For professional applications, the headphone amp should be a separate part of the amplifier. That's because headphone amps and speaker amps require completely different specifications for output power, damping factor, output impedance, slew rate and other variables. If the amplifier is not optimized for headphones, you will soon suffer from common problems like inner-ear fatigue and poor sound imaging. Poorly imaged audio will have no feeling of continuity from left to right, and no sense of depth or space.

Headphone Pad Design

Another headphone-related ailment is outer-ear fatigue. The outer ear is an amazingly delicate part of the body, and few headphones are designed with the long-term listener in mind. Even open-air foam pads can be annoying and painful when pressed against your ears for a while. The design of the headphone pads and the level of comfort they provide should be a deciding factor in your choice. Headphone ear cups generally come in three designs: "supra-aural" (the against-the ear or "open" design), "circumaural" (the around the ear or "closed" design) and inside-the-ear, or Walkman-style. Inside-the -ear headphones can be brutally uncomfortable for extended listening and are certainly a last resort for professional applications. They also feature some of the worst imaging and specs available.

Open-air supra-aural headphones don't block out sound from the outside world and are a good choice if you need to listen for the doorbell or the telephone while working. If you don't want interruptions, buy close-ear, or "sealed", circumaural headphones—the type worn by most audio professionals for critical listening applications. Circumaural headphones also prevent audio "leakage", or the bleeding of sound into the mic while the headphones feed the listener. Enclosed headphones are ideal for while doing voice-overs for video work, because they prevent the original audio track from bleeding into the voice-over. The voice-over takes up a mixer track whose volume has to be separate from that of the background tracks captured with the video camera's mic.

K141

Semi-Open Supra-Aural Professional Headphones

A proven "workhorse" throughout the recording industry, the K141M serves as the reference standard for supra-aural (on-the-ear) monitor headphones. A small coupling volume in the ear cup, combined with an integrated semi-open venting system behind the transducer, gives the K141M a punchy, accurate and crisply defined sound. Delivers high sound pressure levels without distortion. Solidly built to withstand heavy use, it's flexible steel cable frame and self-adjusting head-band adapt to virtually any head shape instantly. 20Hz - 20kHz frequency response.

K141 .....**79.00**

K240M

Semi-Open Circumaural Headphones

Survey after survey confirms that this is the first headphone of choice in the world's leading recording studios. The "integrated semi-open air" design incorporates a highly accurate dynamic transducer, and an acoustically tuned venting structure behind the element produces a naturally open sound quality. The circumaural (around-the-ear) pads are designed for hours of wearing comfort, while the steel-cable, self-adjusting headband construction, and single-sided professional quality audio interconnect ensure extended reliability in demanding professional studio applications.

K240M **89.00**

K240DF

Semi-Open Diffuse Field Circumaural Headphones

The K240DF follows the criteria specified by the Institute of Radio Technology (IRT) for a "diffuse field" EQ curve that provides headphone listeners with the sound pattern, characteristic of a room with reflective, non-anechoic surfaces. Each is rigorously tested to assure adherence to the IRT standards for frequency response, channel separation and sensitivity. Hand-selected and matched components are used to maintain close tolerances. The K240DF is a particularly appropriate choice if a producer or engineer must use headphones when mixing or adding signal processing on material that will be heard later through loudspeakers. 15Hz - 20kHz frequency response.

K240DF **119.00**

K270S

Sealed Dual Transducer Parabolic Headphones

Designed to deliver very high SPLs (Sound Pressure Levels), this dual transducer designed circumaural headphone is the ideal choice in situations where quality monitoring is required in competition with high ambient levels—like use by a studio drummer. The K270S achieves undistorted, wide-bandwidth reproduction. The patented Parabolic Transducer Array has two optimized transducers in each earcup, both in a tuned enclosure to focus sound waves at the entrance to the ear. The result is a dramatically increased perception of spaciousness, extremely accurate response, and no audible distortion at output levels far beyond the capabilities of single transducer designed headphones. A microswitch built into the self-adjusting headband disconnects the audio circuit whenever the headphones are removed, preventing potentially damaging feedback when "hot" headphones are suddenly exposed to open mics. 20Hz - 28kHz frequency response.

K270S **179.95**

HD25SP

Studio Monitor Headphone

A compact, closed back dynamic headphone the HD25SP offers high attenuation of background noise, features extremely robust construction, and is capable of handling very high SPLs (Sound Pressure Levels), making it ideal for use in noisy environments. Utilizing dynamic drivers in a closed supra-aural design, the HD25SP is a lightweight and comfortable alternative for those who spend a great deal of time wearing headphones and need maximum isolation. The HD25SP while extremely rugged, ensures an accurate response for critical studio recording and mixdown applications. The low impedance, high sensitivity drivers exhibit unparalleled efficiency, providing sufficient volume even in applications that have classically required an additional headphone amplifier.

- 30Hz - 16kHz frequency response
- 85 ohms nominal impedance
- Sensitivity is 100dB
- Adjustable headband ensures optimum fit for each user's taste
- 10 foot single sided steel cable with a 1/8″ to 1/4″ stereo phone plug
- Two year warranty on parts and labor

HD-25SP **89.95**

HD265 Linear

Studio Monitor Headphone

Continuing the Sennheiser tradition of sound quality at the highest level, the closed HD265 dynamic stereo headphone is an excellent choice for critical studio listening as well as for professional monitoring applications. Circumaural design combined with the sealed principle makes it an excellent choice for those who prefer a totally quiet listening environment, as well as for professional monitoring applications. The HD265's lightweight, copper-coasted aluminum drive coil in conjunction with the dual layer "Duofol" diaphragm offers amazingly precise sound reproduction with superb bass response. Large, leatherette earpads provide maximum isolation from ambient noise while allowing maximum extended comfort.

- 10Hz- 25kHz frequency response
- 150 ohms nominal impedance
- Sensitivity is 97dB
- Fully adjustable, padded headband.
- Two year warranty on parts and labor
- 10 foot OFC (oxygen free copper) cable comes with a 1/8″ to 1/4″ gold-plated stereo phone plug.

HD-265 .....**169.95**

HD580 Precision

Open-Air Dynamic Headphone

An audiophile quality open dynamic Hi-Fi professional stereo headphone, the HD580 utilizes "Duofol" two-layer diaphragm technology to radically reduce surface born distortion resonances. The powerful Neodymium-ferrous magnet is optimized to control the motions of the diaphragm to provide deeper bass without the risk of boominess. To complement the Duofol diaphragm and Neodymium driver magnets are triple wound aluminum voice coils. Finally, an acoustically transparent earcup maximizes the benefits of an Open-Air design.

- 12Hz - 38kHz frequency response
- 300 ohms nominal impedance
- Sensitivity is 97dB
- Large velvet covered ear cushions and a fully adjustable padded headband for extended listening comfort.
- Open, acoustically transparent earcup.
- Two year parts and labor warranty.

HD-580 .....**199.95**

PROFESSIONAL HEADPHONE

MDR-7502

Designed for a broad range of applications, for general sound monitoring in the studio or the field. A high quality, low-cost alternative to consumer headphones, the MDR-7502's rugged workmanship won't let you down.

- 60Hz~16kHz frequency response
- 45 ohms impedance
- Sensitivity is 102dB
- 30mm driver unit delivers clear, high quality sound reproduction.
- Closed-ear design for comfort and reduction of external noise interference.
- Gold connectors and OFC cord - reliable and stable signal connection and transmission.
- Stereo uni-match plug - 1/4″ and 1/8″ applications.

MDR-7505

The MDR-7505 is a professional stereo headphone designed to meet the needs of professional musicians, broadcasters and DJs on a budget. Their durable and flexible design makes them ideal for recording, control room and live DJ applications.

- Swivel mechanism allows for various wearing positions
- Acoustically sealed ear-cup allows for easier listening in loud environments.
- 40mm driver
- Neodymium magnet for powerful bass and clear highs
- Gold-plated, uni-match connector for universal compatibility with desk top and portable devices.
- Convenient folding design for easier portability
- Extendible, LC-OFC coiled cord for low-loss signal transmission.

MDR-7506

Due to their low impedance, closed ear design the MDR-7506 headphones do an outstanding job of cutting down background noise while providing plenty of volume in the studio or in the field. Ideal for use with MIDI workstations, camcorders or other equipment with less than powerful headphone amplification.

- 15 to 18kHz frequency response
- 63 Ohms impedance
- Sensitivity is 106dB
- Rugged design - proven to be reliable in the toughest situations.
- 40mm driver unit for clear, high quality sound reproduction.
- Folding construction - compactness in storage.
- Closed ear design for comfort and reduction of external noise interference.
- Stereo uni-match plug - 1/4″ and 1/8” applications.
- Gold connectors and OFC cord - reliable and stable signal connection and transmission.
- Supplied soft case for protective storage.

MDR-7509

The MDR-7509 is a high-quality stereo headphone for critical and demanding professional applications, including studio and broadcast monitoring.

- Circum-aural design covers the entire ear for tight acoustic seal and extreme comfort.
- 5~30kHz wide frequency response
- 50mm drivers for superior bass response and low distortion.
- Neodymium magnet for superior bass response and sensitivity Amorphous diamond evaporated diaphragm provides natural sound reproduction.
- Self-muting mechanism prevents leakage when headphones are taken off.
- Reversible ear-cup design allows single-sided monitoring.
- Gold-plated uni-match plug, with 1/4″ and 1/8″ adapters
- Convenient folding design
- Coiled LC-OFC cord for low signal loss.

2-CHANNEL WIRED INTERCOM SYSTEMS

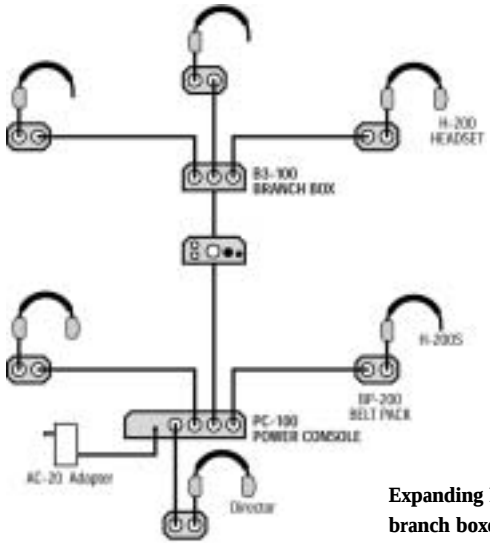
A flexible, high-performance series of two-channel wired intercom, built smart, simple and affordable without sacrificing power or sound quality. Portacom's low-noise, broadcast-quality intercom systems are easily expandable and can be tailored to any environment. They are available in pre-configured 2-headset to 8-headset systems or as individual components. Connection between components are made with standard mic cables and quickly adapt and grow with your needs without having to start all over with a new system. The two channel capability offered by these systems allow a director separate lines of communication to crew members and talent. The small, lightweight aluminum belt packs have their own channel switches and volume controls and Headsets are equipped with mic on/off switches. The noise-canceling microphones reduce background noise and you can power the system with an optional lightweight battery pack. Ideal for use in television/theater/lighting and church production, educational institutions, industrial production, sound contracting and football coaching.

FEATURES

- Full duplex
- High performance/low cost
- Durable lightweight metal construction
- Standard cables/ 3-pin XLR connectors
- Comfortable noise cancelling headsets
- Battery powered option
- Call light function
- Offers 20-headset capability with simple branch-box operation
- Can be purchased in systems or components

Why Two Channels?

With two channels, you can have the advantage of extensive communications without getting tangled in crosstalk. A director can cue cameras or talent on one channel and a lighting or sound crew on the other. Coaches on offense can call plays at the same time their defensive counterparts are reviewing strategy, with a head coach switching back and forth between them. When distractions multiply, PortaCom's low-noise, broadcast-quality audio helps keep communications clear. When you add it up, PortaCom's probably got more features for the money than any other two-channel intercom system on the market.



Expanding PortaCom is easy, using the B3-100 branch boxes (1-in, 3-out) and standard mic cable

Keep on Growing

PortaCom's modular branch boxes make expansion a snap. Start with a basic two-person system and expand all the way to a 20-person system—all running from a single AC power supply over standard mic cable.

2-CHANNEL WIRED INTERCOM SYSTEMS

Components

PC-100: 2-Channel Power Console-
Two channel power console with 4 outputs; powers up to 20 BP-200 belt-packs. Includes wall mount AC power adapter (operable on 30-40v DC).....**197.95**

BP-200: 2-Channel Belt-Pack-
Small, lightweight belt-pack with volume control and A/B channel switch, call light and mic on/off switch. Has standard XLR-3 line connector and XLR-4 headset connector. Rugged aluminum construction. For use with H-200 headsets.....**128.50**

H-200: Dual Earpiece Headset-
Lo-Z dynamic microphone and headphones with 6' cable and female XLR-4 connector. Features mic on/off switch, and noise cancelling mic **137.95**

H-200S: Single Earpiece Headset-
Lo-Z dynamic microphone and headphones with 6' cable and female XLR-4 connector. Features mic on/off switch, and noise cancelling mic **119.95**

B3-100: PortaCom Branch Box-
For expanding PortaCom systems, 1 input and 3 outputs **76.50**

CC-15F: Deluxe Carrying Case-
Has custom-cut foam inserts for one power console, AC adapter, 6 headsets, 6 belt-packs, Branch Box (no cables).....**119.95**

CC-15 PortaCom Carrying Case-
Without foam inserts **98.95**

PBS-100 Portable Battery Supply-
Uses 6 D-cell batteries to power 8-10 headsets for 6 to 8 hours **174.95**

RM-100 PortaCom Rackmount-
Mounts 1 or 2 PC-100 power consoles in a single 19" rack space **47.50**

COM-60FC

Pre-Configured 2-Channel Intercom Systems

2-channel wired intercom systems consist of a central power supply, belt packs with A/B channel select, volume control, call light and mic on/off switch. With dual muff headsets, carrying case, and with or without standard mic cable. (H-200S single muff headsets can be substituted– mixed or matched, but you must specify.)

COM-20 2-Headset System:
Includes PC-100 power console, (2) H-200 dual earpiece headsets, (2) BP-200 belt-packs, (2) EX-50M 50´ extension cables, CC-15 carrying case.....**795.00**

COM-20FC 2-Headset System:
Same as COM-20 without cables ..**729.00**

COM-40 4-Headset System:
Includes PC-100 power console, (4) H-200 dual earpiece headsets, (4) BP-200 belt-packs, (4) EX-50M 50´ extension cables, CC-15 carrying case.....**1275.00**

COM-40FC 4-Headset System:
Same as COM-40 without cables **1169.00**

COM-60 6-Headset System:
PC-100 power console, (6) H-200 dual muff headsets, (6) BP-200 belt-packs, B3-100 branch box, (7) EX-50M 50´ extension cables, CC-15 carrying case ..**1895.00**

COM-60FC 6-Headset System:
Same as COM-60 without cables **1646.95**

COM-80 8-Headset System:
PC-100 power console, (8) H-200 dual muff headsets, (8) BP-200 belt-packs, (2) B3-100 branch boxes, (10) EX-50M 50´ ext. cables, (2) CC-15 carrying cases.....**2579.00**

COM-80FC
Same as COM-80 without cables **2240.00**

Telex AUDICOM

Modular Wired Intercom Systems

Audiocom intercoms are designed to be incredibly versatile. Audiocom modular series components can adapt to unlimited configurations, from simple beltpack party lines to sophisticated director-controlled networks with multiple channels and matrix control. Conventional microphone cable supports networks with up to 22 channels of combinations of user stations, beltpacks, speaker stations and power supplies. The rugged metal framework of Audiocom intercom protects against electro-magnetic and radio frequency interference, while the advanced surface mount circuit boards ensure compact size as well as long term reliability. Sturdy extruded metal beltpacks offer lightweight durability, while low profile recessed controls protect against inadvertent switching and damage from rough handling.

Call for information and pricing

PH-1 Headset

BP-2000 Beltpack

US-2000 Base Station